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ABSTRACT

A volume combining two special issues of "Papers in Linguistics" contains 10 papers concerning Japanese language use and 12 concerning languages of the U.S.S.R. The papers on Japanese include: "Intrusion in Japanese Conversation," "Japanese Use of English Loans," "Some Discourse Principles and Lengthy Sentences in Japanese," "On the Two Forms of Negative Gerund in Japanese," "Some Politeness Strategies in Japanese," "Pragmatics of Causation in Japanese," "The Status of Kobuji: Usage of Ideographs Unique to Japan," "Subject Ellipsis and Topic in Japanese," "Variation and Change in Japanese Honorific Forms," "Presuppositional Culture Spaces: Language Use in Everyday Life." The papers concerning languages in the U.S.S.R. include "Predicate Instrumental and Agreement in Lithuanian: A Contrastive Analysis," "A Sketch of Vowel Harmony in the Tungus Languages," "Universal and Particular Properties of the Ewenki Case System," "On the Penumbra of Questions Surrounding the Internal Reconstruction of Gilyak," "The Phonology of Chukchee Consonants," "The Genetic Affiliation of Kamchadal: Some Morphological Evidence," "N-Agreement in Old Georgian," "On Derived Inceptives in Georgian," "The Causative: Daghestanian Variations on a Theme," "Subject Marking in Some Languages of Daghestan," "The Organization of a Voice-Neutral Verb: An Example in Avar;" and "Grammatical Subject and the Problem of the Ergative Construction in Lezgian." (MSE)

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STUDIES IN JAPANESE LANGUAGE USE

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STUDIES IN JAPANESE LANGUAGE USE

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PREFACE

This volume contains ten articles on the theme "Japanese Language Use." As such, it covers varieties of topics and encompasses rather different disciplinary orientations.

In terms of the types of subject matters discussed, they may be divided into the following five groups (we will note, after the title of each article, the date when the article was received since this volume has taken a long while to formalize): (i) "The status of kokuji: Usage of ideographs unique to Japan" by Reiman (March 1983) and "Japanese use of English loans" by Hoffer, Beard and Honna (April 1983) deal with issues of integration into Japanese of communicative systems of foreign origin; (ii) Yamamoto's "Presuppositional culture spaces: Language use in everyday life" (May 1981) and Wenger's "Variation and change in Japanese honorific forms" (April 1981) are both concerned with patterns of linguistically coded social interaction; (iii) the term 'discourse analysis' applies straightforwardly to Shibamoto's "Subject ellipsis and topic in Japanese"

(March 1982) and to Hinds' "Intrusion in Japanese conversation" (May 1981); (iv) interaction of syntactic and discourse factors is a central issue for McGloin's "Some politeness strategies in Japanese" (October 1981) and for Inoue's "Some discourse principles and lengthy sentences in Japanese" (May 1983), although the specific phenomena they deal with as well as their underlying interests are quite different; and (v) Miyagawa's "Pragmatics of causation in Japanese" (December 1982) and Kitagawa's "On the two forms of negative gerunds in Japanese" (April 1983) are concerned with how formal grammar interacts with pragmatic factors.

In terms of disciplinary orientation, the articles by Inoue, Kitagawa, McGloin, and Miyagawa represent continuing attempts by generative grammarians to identify, if for quite different reasons and with varied degrees of intensity, the precise nature of relationships between sentence and discourse grammars. Shibamato, on the other hand, pursues the ellipsis issue in the frame of reference customarily adhered to in ethnography of communication in her attempt to articulate the interaction of linguistic forms with social processes. In a similar anthropological tradition, Wenger's paper identifies both what is universal and

what is variable in the patterning of Japanese honorifics. The article by Hoffer, Beard, and Honna is concerned with issues of linguistic variants -- albeit in a very broad sense of this term -- in a perspective that is crucial in socio-dialectology. Hinds' article focuses on micro-sociolinguistic processes that are involved in face-to-face conversational interaction. And in a similar social psychological orientation, Yamamoto's article takes up a problem of contextual variation. Finally, Reiman's article admirably extends the traditional Japanese scholarship in the field of kanji and kokuji research.

We would like to thank John Hinds for his assistance and encouragement throughout this project. Myriam Casey typed the bulk of the manuscript, including several preliminary drafts, and Debbie Weakley assisted us with the preparation of the final version. Miyagawa's part of the work for the volume was partially funded by NIMH 1F32NH08524-01.

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August 1983

INTRUSION IN JAPANESE CONVERSATION

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The Pennsylvania State University

My point of departure is the fortuitous coincidence that the word politeness may refer to a behavioral activity as well as to a system of linguistic choices. The use of the term politeness with reference to language activity in Japanese designates the complex system termed keigo. The aspect of behavioral activity of relevance is propriety; specifically the temporary breakdown of constraints against the invasion of personal space.

Keigo refers to the complete linguistic system of honorific language. Martin (1965) and Miller (1969) have distinguished two axes along which obligatory choices are made. These are the axis of address and the axis of reference. Along the axis of address choices are primarily made depending on the speaker's attitude toward the addressee. Along the axis of reference choice is dependent upon

the speaker's attitude toward the subject or topic of discourse. Choices along the axis of address are typically referred to as Teineigo (polite speech) and Bikago (beautiful speech) (cf. Oishi 1975, Hayashi and Minami 1974, Tsujimura 1967). Choices along the axis of reference are referred to as Sonkeigo (respect speech) and Kenjoogo (humble speech). Harada 1976 has discussed these axes in terms of propositional and performative distinctions, respectively. The chart in (1), taken from Miller (1969:271), summarizes the occurring forms for everything but bikago.

Examples of bikago may be seen in example (9) where speaker I uses the term oryoori 'cooking' instead of the more neutral ryoori.

(1) From Miller (1969:271)

AXIS OF ADDRESS

	Plain	Deferential	Polite
Verbs	-(r)u	---	-(i)masu
Copula	da	---	desu
	de aru	de gozaimasu	de arimasu

AXIS OF RESPECT

	Humble	Neutral	Respectful	Elegant	Exalted
Verbs	o- ...suru	-(r)u	-(r)areru	o-...ni naru	o-...asobasu
Copula	---	da	---	de irassyaru	---

All investigators have seen the system of keigo to be rule-governed, although the rules, quite naturally, have remained somewhat elusive. The keigo system has been described variously as containing appropriate verbal inflections and suppletive forms, and appropriate nominal alternations. The National Institute for the Study of Japanese (Kokuritsu Kokugo Kenkyuujo) has studied the matter of keigo, and the results of its major report, Keigo to Keigo Ishiki (Honorifics and Honorific Consciousness), are summarized in Miller (1969:283-4). The Institute reports a wide variety of phenomena extending beyond usual morphological alternations which tend to make an utterance more polite. An utterance is considered more polite if it incorporates rhetorical negatives, if it is a long alternative, if it has no dialect forms in it, or if it contains Chinese loanwords. The Institute further reports that more polite expressions are anticipated when one is in a 'psychologically weak' position, when one is speaking to strangers, when

one is from the western part of Japan, or when one is of a higher educational or social background.

Nonverbal and nongrammatical reflexes of keigo have also been considered in the literature on this subject. Kasahara (1974) and Kunihiro (1977) have both claimed that looking downward or away is an indication of politeness. Body language, in particular bowing, has been discussed extensively as a reflex of politeness constraints. Hinds (1976) has claimed that the retention of postpositional particles and the avoidance of postposed phrases may be used to indicate politeness.

In Hinds (1978), English and Japanese attitudes about conversational interaction were discussed. The basic claim made there was that Japanese have a greater concern for achieving "conversational harmony" than Americans (similar observations are made in Nakane 1970). This desire for achieving harmony has at least four consequences of relevance to the investigating linguist. One, participants in conversations avoid direct refusals. This propensity to avoid direct refusals in the face of aggressive petitioners gives rise to a variety of alternative means of expression, incuding repetitions, silence, evasions, and pretended misunderstandings. A second consequence is the use of repetitions to achieve solidarity. A third

concerns the speaker's accommodations to the addressee's needs. Some types of accommodations are an increased use of backchannel expressions, the nonellipsis of predictable information, and the use of expressions designed to put the addressee at ease. The fourth consequence concerns an increased use of honorific language (keigo).

In this respect I investigate some of the verbal and nonverbal consequences which arise when the speaker acts in a nonharmonious fashion. Data are taken primarily from videotape recorded conversations and interviews. Much of what I discuss may be described as violations of Robin Lakoff's (1973:298) "Rules of politeness." I am particularly concerned with Lakoff's sanction against impositions; I examine what happens when a speaker intrudes on another's personal space.

There is a considerable literature devoted to the definiton of personal space, and the reactions which occur when personal space is physically invaded. Bond and Iwate (1976) pose an interesting question for this type of investigation. They ask which response modes are affected by spatial intrusion--feeling states, perceptual ratings of the intruder, or nonverbal behavior? They find that subjects are more anxious, more fearful, more introverted, and more closed when interacting with

interviewers who intrude into their personal space. The intrusive interviewer was rated as more fearful, more impure, less deep, and colder. Nonverbal behavior was also significant since subjects tended to produce longer pauses, evidence fewer glances toward the intruder, and display more backward leaning postures.

Other reactions are possible, in fact they are probable. In this first segment of conversation to be discussed, the female interviewee has been asked by the male interviewer to tell some folktales, and she has just attempted to relate one, rather unsuccessfully. She has also stated that she does not remember any others well enough even to attempt them. As she is expressing her perplexity, the interviewer reaches over to adjust her lavaliere microphone, a clear physical invasion of her personal space. Aizuchi, or backchannel expressions, are indicated in the examples by capital letters in parens. The exclamation points signify the place at which the interviewee wipes her nose with a hankerchief.

(2) Y. nnn ... watasi::, komarimasu ne (HA HA).
I perplexed EM

siranai n desu yo, hon-
know-not one copula EM real-

Hm, this is embarrassing, I don't know any, real-

K. kore, koo, (A) haitte-ta ka-na
this uh entered wonder

Here. Uh, I wonder if this was recording.

K. eeto-ne:. (AHEM) hoka-ni okiki-sitai
uh (!!!!) other want-to-ask

koto wa (EE), anoo, anata kono-mae, anoo,
fact TOP uh you previously uh

meenrando no hoo ni ryokoo (HAI)
Mainland 's direction to trip

nasaimasita ne? (E) ikaga desita?
did right how cop-past

Uh, I have something else to ask you. Uh, before you said that you had taken a trip to the mainland. How was it?

Although the interviewee has been holding this handkerchief throughout the interview, this is the first time she uses it to wipe her face. This reaction is important since it allows a bridge between physical and verbal intrusion to be constructed. Verbal intrusion of personal space occurs when a conversational participant asks a question which is inappropriate or aggressive, or makes a comment of a similar type.

At a later point in this same interview, the male interviewer makes reference to the interviewee's age. Even under normal circumstances one's age might not be open to public discussion (it is not "free goods" in Goffman's terms). In this specific case, however, the situation is compounded since the subject of the interviewee's age is known to be off-limits by the interviewer because of specific discussion of this point before this taping began. Yet the interviewer makes reference to the interviewee's age. Coupled with loud laughing, the interviewee once again wipes her face for the second and final time in approximately twenty minutes of conversation as a response to verbal intrusion of personal space. Once again, exclamation points signal the place at which the interviewee wipes her face with her handkerchief.

(3) K. sore kara moo hitotu, mata hanasi
that after more one again topic

kawarimasu kedo
change but

ne, (EE) maa, kore made kanari nagai zinsei
EM uh this until fairly long life

no naka
's middle

de, (HAI, HA HA HA) ha ha (HAI, NANTE HA HA
at (yes !! !! !!) yes something

MITOMETYATTE) toku-ni nanika, anoo, ...
recognized especially something uh

So, one more thing, I have to change the topic again, but uh, up 'til now you've been around for quite some time (OH YES: YOU'VE NOTICED HUH?), so in particular, uh, ...

My point of departure then is that verbal and physical intrusions of personal space are similar violations of propriety or politeness. A normal reaction to spatial intrusion is flight (Felipe and Sommer 1966). Since flight is impossible, or at least highly improbable for my subjects, other reactions are anticipated. Two reactions have been documented: Aggressive, or counterattacking; and defensive, or building barriers. Following Bond and Iwate (1976), I anticipate that the primary reactions of persons whose personal space have been invaded will be nonverbal, although verbal reactions should also occur.

One type of defensive verbal reaction has been discussed in Hinds 1976 with respect to the concept of ingoup-outgroup membership. Individuals considered to be within the speaker's ingoup at the time of the utterance are accorded nonpolite forms (da-tai). When an individual who is normally

considered to be a member of the speaker's ingroup brings up a topic which is considered too personal, however, the speaker will tend to speak more politely, at least temporarily, in order to force the person out of the ingroup.

(4) From Hinds (1976:123)

A. ren'ai-kekkon? miai-kekkon?
love-marriage arranged-marriage

Did you have a love marriage or an arranged marriage?

B. boku no baai wa, anoo, miai desu kedo ne.
I 's case TOP uh arranged copula but EM

Well, in my case it was an arranged marriage, but ...

A uses nonpolite forms to ask his question, in line with his previous lack of polite usage. B's response, however, contains the polite marker desu, a subtle indication that the question A asked was inappropriate. A gives every appearance of understanding this tactic since he immediately shifts the conversation away from B's specific case to a discussion of marriage in general. The defensive strategy of shifting to polite speech builds an effective barrier.

A later segment of the interview presented in (2) and (3) provides an example of aggressive behavior in response to intrusions. This type of behavior is clearly evident for English speakers (Dosey and Meisels 1969, Maisels and Dosey 1971), although it occurs less frequently for Japanese.

(5) Y. watasi tte iu ningen ga wari-ni,
I QT say human NOM comparatively

nante-iu-n-ka-sira, anoo, opun te iu ka,
what-should-I-say uh open QT say QU

anoo, oputimisutikku te iu ka,
uh optimistic QT say QU

nante-iu-ka, kyoomi:::bukai hoo
what-should-I-say interest-deep alternative

desu. kyo-kyo-kokishin desu ka? e,
cop curiosity cop QU uh

(TAZYOO TTE IU IMI ... TAZYOO TTE IU IMI
licentious QT say meaning

DESU KA?) iie, soo zya-nakute, kokusin
cop QU no that not-be curiosity

ga tuyoi ... ha ha.
NOM strong

Well, what should I say, someone like me, is uh, open? optimistic? uh, maybe deeply interested in everything. It's, uh, co-cyo-curiosity? uh (YOU MEAN LICENTIOUS ... DO YOU MEAN LICENTIOUS?) No! it's not that, I'm very curious, ha ha.

K. a soo desu ka. ee, zya, sono teido
a right copula QU uh well that behavior

de kyoo wa kekkoo desu node ...
with today TOP sufficient cop since

Oh really. Well, uh, with that,
since we've got enough for today, ...

Y. a soo desu ka?
a right cop QU

Oh really?

K. kyoo wa honto-ni doomo arigatoo-gozaimasita.
today TOP really very thank-you

Today, thank you very much.

Y. a iie.
a no

No, not at all.

Y. tyotto anata kore kyoo wa tte koto kurasu ni
just you this today TOP QT fact class in

tukau no, sore-ni tazyoo da nante
use one to-that licentious cop something

sonna anata komaru zya-nai no.
that-kind you awkward isn't-it one

Oh you, what are you going to do, use this in class? And you said I was licentious? Oh you're really terrible.

One of the reasons Y evidences aggressive behavior is that she believes the interview has been

completed; more precisely she has associated the end of the interview with the termination of recording. Thus, compare her immediate reaction to intrusion, laughing, to her "off-camera" reaction. First, tone of voice has changed. Second, she switches from the polite level she has maintained throughout the interview (desu-tai) to nonpolite forms (da-tai). Third, she uses the personal pronoun anata 'you' twice, the only time she does so in the conversation. Fourth, she contracts her statements for example, by leaving out the quotative verb iu 'say' in the expression kyoo wa tte koto 'today's taping'. This is the only time in nine instances of this construction that the verb is omitted. Fifth, she leaves out most of the grammatical particles. Each of these phenomena is associated with nonpolite, rather than polite speech.

Reactions to the invasion of personal space may be seen both in the one who has been intruded upon and in the one who has intruded. I shall present data to demonstrate that the effects of intrusion may be measured, and that these effects contribute to the overall system of interpersonal communication.

Examples (6) and (7) are segments of a single interview. They should be viewed contrastively. In (6), H asks W a nonthreatening question, and W's response is typical.

(6) H. nn, syumi wa? donna?
hobby TOP what-kind

Um, your hobbies, what kind of - ?

W. hhm, syumi ne:, atasi wa ne:, motomoto
hobby EM I TOP EM long-ago

sugo::ku ongaku kiitari suru no wa
really music listen do one TOP

suki datta no, demo, nanka anoo, maa.
like cop-past one but something uh uh

a, zikanteki toka keizaiteki, no ne?
time-like and financially one EM

nanka riyuu de tyotto, piano benkyoo
something reason with just piano study

site-ta n da kedo,
did one cop but

Hm, my hobbies. Well, originally I really liked listening to music and things like that, but well, uh, because of time pressures, and finances, and reasons like that, well, I used to play the piano, but ...

W repeats the word syumi 'hobby' as part of a confirmation strategy (for details, see Hinds 1976, 1978). H's question requires preparatory thought for W, and this is evidenced by her upward look to the left as well as the use of 'fillers' like atasi wa ne 'I', anoo 'uh', nanka 'something', and tyotto 'just'.

In (7), H asks a threatening question. This segment is taken from an informal interview in which H has asked W a number of unrelated questions. Typically, in order to progress to a different topic, H has looked down at a sheet of paper on which suggested topics are written, has looked up, has said something like anoo 'uh', and then has broached this new topic. She follows this established pattern in (7).

(7) H. a, dare ga suki?
a who NOM like

Uh, who do you like?

W. dare ga suki?
who NOM LIKE

Who do I like?

H. nn, anoo, ongakka n naka de.
mm uh musician 's among with

Mm, uh, among musicians.

W. ongakka n naka de ne::, anoo, hitotu dake
musician 's among with EM uh one only

sugoku suki na no ga aru no ne,
very like 's one SM be one EM

Well, among musicians, uh, there's only one that I really like, ...

W's tone of voice in repeating the question has changed dramatically from her repetition in (6). H

recognizes that she has probably overstepped the normal bounds of politeness and she backs off immediately by changing the intent of her question from "Who do you like, romantically?", an intrusion into W's personal space given the televised nature of the proceedings, to the more neutral question, "Who do you like among musicians?" W's nonverbal reaction to this shift in meaning is to look down. Her reaction may be attributed to the embarrassment of the original question, to the fact that she has been tricked in some way or another by H, or to the fact that her personal space has been invaded. Whether or not this specific example of looking downward should best be interpreted as a reaction to the invasion of personal space, I hope to present enough data to show that looking downward is one of several typical responses to breaches of propriety.

Examples (8) and (9) are also meant to be seen in contrast with one another. In (8), speaker I asks speaker O what the layout of his apartment is, a question which does not intrude upon O's personal space.

(8) I. zya ne? sono apaato no yoosu o
well EM that apartment 's appearance OM

kantan-ni hanasite-moraemasu ka? anoo, heya
simply speak-can-receive QU uh room

ga ikutu aru toka, (AAA) doo iu guai
NOM how-many be and how say condition

ni, heya ga haiti sarete-iru toka. (HA)
in room NOM arrange be-done and

heya no naka-ni donna mono ga aru
room 's inside what-kind thing NOM be

toka. (EE) narubeku . watasi ga, atama no
and as-much-as I NOM head 's

naka-de sono yoosu o soozoo dekiru
inside that appearance OM imagination be-able

yoo-ni, hanasite-itadakeru to (A SOO-DESU-KA.)
way speak-can-receive if a really

arigatai n desu ga.
want-to-thank one cop but

Well, can I have you tell me about the layout of your apartment? You know, how many rooms are there, in what way is the room arranged, what kind of things are inside the rooms. I'd like you to tell me so that I can picture it in my mind.

O. sono apaato wa hikakuteki kirei
that apartment TOP comparatively pretty

datta no de ne? anoo, soto kara mite
cop-past one cop EM uh outside from see

kirei datta node eranda n desu
pretty cop-past since chose one cop

kedomo, ma, naka mo itioo kirei-ni
but uh inside too in-brief prettily

sarete-masite, ...
be-done-and

The apartment is pretty nice, see, and uh, it's nice from the outside, so that's why we chose it, but the inside is nicely arranged also, ...

As with the previous examples, this question requires some planning on O's part in order to be answered. O looks up while the question is being asked, a manifestation of his preparatory organization of information for presentation.

Example (9) constitutes an invasion of personal space in that it requires O to respond to a question which asks about his personal skills; it requires O to violate his notions of enryo, or restraint.

(9) I. eeto ne, kondo wa, oryoori no hanasi na n
uh now TOP cooking 's topic 's one

desu kedomo ne.
cop but EM

O. ee. he he.
Yes.

I. anoo, nande-mo-ii desu kara ne.
uh anything-is-OK cop since EM

Uh, anything at all will be OK,

O. ee.
Yes.

I. oohasi san ga dekiru ryoori no ne?
Mr. NOM be-able cooking 's EM

(HA HA HA) tukurikata o
method ALL

osiete-itadake-masen ka? zairyoo
teach-can-receive QU ingredients

toka, (EE) sono tezyun ne? (EE)
and that order EM

sore-nara mata dekiru dake
if-that again be-able only

wakariyasuku (EE) hanasite-itadakitai
easily-understood speak-want-receive

n desu kedomo ne.
one cop but EM

I'd like you to explain to me how you cook something you're able to cook. I'd like you to tell me in the simplest way what ingredients you use, how you put them together, and things like that.

O. zya ne, unto, watasifuu no ne?
well EM uh my-style 's EM

te-teriyaki ne?
teriyaki EM

Well, uh, my style of teriyaki, ...

In contrast with his behavior in (8), in (9) O laughs loudly and looks down. By itself this may not seem more than a chance display of momentary embarrassment. If the data presented in Chart (10)

are considered in conjunction with this, however, these reactions to questions which intrude upon personal space are seen to occur at greater than chance levels.

(10)

SEX	Apartment	Cooking
F	smile	big laugh, right hand over mouth
F	-----	big laugh, right hand on back of head
F	-----	laugh, right hand on forehead and scratch
F	right hand brush hair	inhale, look down, left index finger on nose
M	big smile	laugh with noise
F	laugh	look down, big laugh

Of seven subjects, including 0, none looked down when asked about the layout of the apartment. Three displayed no smile, three displayed a smile, and one laughed. Only one made any gestures with a hand.

In response to the question about cooking, six of seven laughed out loud. Four of seven show some hand gesturing typically associated with embarrassment. Three of seven look down. In every case there is a stronger reaction, defined as more overt nonverbal activity, to the question about cooking.

Compare now the nonverbal reactions of A to two different types of questions from K. This segment of conversation is taken from an interview in which K has been instructed to ask as many questions about A's husband as she can. The original purpose of the interview was to gather data on anaphoric expressions. It turns out that the data on intrusion are equally interesting.

(11) K. sosite, kore kara, ne.
so here from EM

So, from now on,

A. nn.
Yes,

K. issyoo hawai ni, koo, sumu wake?
forever Hawaii in uh live reason

sumu wake tte okasii kedo,
live reason QT funny but

sumitai wake?
live-want reason

So, uh, will you live from now on in Hawaii, well it's funny to say will you live in Hawaii, uh, do you want to live in Hawaii from now on?

A. nn, mada atasitati hakkiri-site-nai kedomo,
uh yet we decide-not but

koko n kikoo ga suki desu- suki
here 's climate ON like cop like

na no de, n, iti-ni-nen
's one cop-and uh one-two-year

amari-wa sunde-ru to omou.
plus live QT think

Um, we haven't decided anything definitely yet, but we like- because we like the climate we think we'd like to live here for another year or two.

K. a, iti-ni-nen wa ne. soo, gosyuzin wa,
one-two-year TM EM so husband TM

(ATO-WA MADA WAKARANAI) ima hawai
after yet don't-know now Hawaii

de nani o site-rassyaru wake?
at what OM doing reason

Oh, another year or two. So, your husband (WE'RE NOT SURE AFTER THAT), what is he doing now in Hawaii?

A. ima wa:::,
now TM

Well, now, ...

K. benkyoo?
study

Is he studying?

A. nanni-mo site-nai n desu.
nothing not-doing one cop

He's not doing anything at all.

K. demo gakkoo wa owatyatta n desyo?
but school TM ended one right

moo ne?
already right

A. nhn, nhn.
Yes, yes.

K. zya::, ma, syoorai wa, sonoo, rekisi no
well uh future TM uh history 's

sensei tte iu koto?
teacher QT say fact

Well, uh, in the future, uh, is he going to be a history teacher?

A. sensei ni wa betu-ni naritaku-nai no.
teacher to TM specially become-want-not one

No, he doesn't especially want to become a teacher.

K. osieru tte koto ga kirai na wake?
teach QT fact OM hate 's reason

What, doesn't he like teaching?

A. rekisi o osieru koto wa suki zya-nai no.
history OM teach fact TM like cop-not one

Right, he doesn't really like teaching history.

Reference will be made subsequently to K's infelicitous question hawai ni sumu wake 'Will you live in Hawaii?' and her correction sumitai wake "Do

you want to live in Hawaii?' Of importance here is the fact that the question is nonthreatening and A's response to this is neutral. More than just neutral, she seems to be purposely attempting to maintain nonpolite forms in her responses. This may be seen in her "repair" of the utterance koko n kikoo ga suki desu- suki na node 'since we like the climate here', and her use of nonpolite to omou 'I think' to end the utterance.

Contrast this behavior with her response to the threatening question of what her husband is currently doing for a living. This is clearly a case of an inadvertent intrusion, since normally someone's profession is considered "free goods". The fact that A's husband is unemployed, however, and that he has no plans for employment make this a touchy subject. Three behaviors on A's part are of interest. First, A switches to polite speech when she answers nanni mo site nai n desu 'he's not doing anything at all'. This is similar to the use of polite forms discussed in (4) designed to signal to the questioner that the topic is off-limits. K does not take the hint. As a result, A looks down and brushes lint off her lap. The third behavior is A's retention of the object particle o in rekisi o osieru koto 'teaching history'. Martin 1975 and Hinds 1982, among others, have discussed the fact

that the object marker o is ellipted with fair frequency in normal conversations. Hinds 1976 has suggested what some of the conditions on such ellipsis might be. In the twenty minute conversation from which this excerpt is taken, A uses ten expressions of the type NP o V. In only one situation does the utterance appear under a condition of intrusion, and it is only in this case that the object marker o actually appears. This supports the observation in Hinds 1976 that the retention of grammatical particles signals a more polite expression.

(12) ELLIPTED OBJECT (o) MARKERS

eego no benkyoo suru tame-ni
English 's study do purpose

"In order to study English"

...eego kiitari ...
English listen

"... listened to English, etc ..."

sonna koto kikanai-de.
that-kind fact ask-do-not

"Don't ask that kind of thing."

... tegami yaritori site ite ...
letter exchange do-and

"We exchanged letters and ..."

oya ga hantai site-ru no sitte-ta kara
parent SM oppose doing one knew since

Because we knew my parents were opposed

taigo benkyoo suru tame-ni kita wake ...
Thai study do purpose came reason

He came to study Thai ...

zibun-zisin no koto kangaete ...
self 's fact think-and ..."

I thought about myself, and ...

syasin toru no suki da kara ...
picture take one like cop since

Since he likes taking pictures, ...

In the data I have presented so far, I have attempted to demonstrate that there are a number of little noticed concomitants to polite speech in addition to the typical manifestations such as desu and -masu forms. In particular I have tried to show that looking downward is considered polite behavior and that the retention of particles is considered polite. In the case of aggressive responses to intrusion, as in (5), there is a tendency to shift to nonpolite forms. In the case of defensive responses to intrusion, the tendency is to becmoe more polite, to create a verbal or nonverbal barrier. This is related to the fact that polite forms are reserved for individuals outside the

speaker's ingroup; that is, for those who are at psychological or physical distance from the speaker.

I wish now to examine one more aspect of intrusion. The effect of intrusion on the intruder. Knowles (1973), in an experiment designed to determine under what conditions someone would physically intrude upon other's personal space, provides evidence that intruders do not enjoy the role of intruder. Only 25% of the subjects in Knowle's experiment actually intruded, and those who did exhibited various verbal and non-verbal behaviors designed to ameliorate the effect of their intrusion.

Just as we may measure differences in degree of effect of intrusion on the person intruded upon, we are able to measure differences in behavior in persons who have done the intruding. Recall the behavior of H in (7), how quickly she backs away after intruding on W. This is a common reaction for intruders, and, as might be expected, the greater the impropriety, the more exacerbated the reaction.

I have on record two examples of what I would consider gross improprieties. These improprieties are more remarkable in Japanese conversation than they would be in English conversation because of the desire on the part of Japanese conversationalists to achieve harmony (see Hinds 1978). Anything which

disrupts harmony can be considered undesirable. Intrusion, as presented here, are examples of this. Occasionally, however, the degree of intrusion is such that it causes severe discomfort. In (13), A has been describing why she likes the American mainland. Notice what happens immediately after K tells A that San Francisco does not resemble Hawaii.

(13) A. yap- atasi hawai, koko, suki da kara
Of- I here like cop since

ka-mo-sirenai kedo, toku-ni hawai ni
probably but especially to

ni- nite-ru desyo? kikoo ga
resemble right climate SM

Of- I like Hawaii, here, so I guess that's why but, it's like Hawaii, isn't it, the climate?

K. san-furansisuko wa?
SF TM

San Francisco?

A. Nhn, nanka sonna kanzi,
something that-kind-of feeling

Yeah, you know, I had that kind of feeling,

K. itu nangatu ni irasita?
when what-month in went

When did you go, what month?

A. eeto ne, itigatu.
uh EM January

Uh, let's see, in January.

K. itigatu no (EE) san-furansisuko tte hawai ni
January 's uh SF QT to

amari nite-nai wa-yo.
much resemble-not EM

January in San Francisco is not very much like Hawaii at all!

K. he he, demo, nisyuukan dake tyotto sika
but 2-weeks only little except

itte-nai kara tabun are datta no ne.
go-not since maybe that cop-past one EM

Ha ha, but since you were only there for two weeks, maybe that's it.

Zya:::
Well,

A. sunde-ita tokoro ga yokatta kara
lived place SM good-was since

ka-mo-sirenai wa. anoo, syuzin no itoko no
probably EM uh husband 's cousin 's

uti de sugoku yoku site-kudasatta si.
house at very lots gave-us and

It was probably the place we stayed at. Uh, we really received lots of things at my husband's cousin's place.

K. de, san-furansisuko no naka? sore-tomo, koo,
uh SF 's middle or uh

koogai?
outskirts

Uh, was it right inside the city? or in the suburbs?

K. san-furansisuko wa tyotto doko?
SF TM little where

Where is San Francisco?

A. doko da ka siranai wa-ne, wasuretyatte,
where cop QU know-not EM forget-and

I don't really know where it is, I forget.

K. a, wasuretyatta. zya::, maa, kore kara mo, ma,
a forgot well uh now from too uh

hawai ni sumu tte koto ne? sumitai tte iu,
in live QT fact EM live-want QT say

Oh, you forget. Well, uh from now on, you'll live in Hawaii, right? or you want to live in Hawaii,

A. sumitai to iu kiboo wa aru kedo doo naru
live-want QT say hope TM be but how become

ka wakannai wa, n.
QU know-not EM n

We hope to live in Hawaii, but we don't know what will happen, right.

K. zya, daitai kono hen de ii n
so generally this place at OK one

zya-nai ka-sira.
be-not guess

So, well, I guess that will about do it for now.

First, there is laughter from one of the people involved backstage in the videotaping. This signals the extent of the impropriety. Second, A has no overt reaction at all. She is blank. Third, K immediately offers a reason why A would have said that San Francisco and Hawaii are similar. She has started to retreat from her intrusion. At that point, K states, zyaa:: 'Well,". This is a signal that K intends to end the interview. According to the original plan, the interview was to have continued, but this abrupt attempt at ending the interview is K's reaction to her own intrusion. She has attempted flight.

A forces the interview to continue by responding to K. K's solicitations from this point on demonstrate that she is no longer interested in the probing type of questions she had been using just prior to this. The next time K says, zyaa in an attempt to end the interview, she follows it with a self-deprecating remark on her own phrasing error she had made earlier in (11). This comment seems

designed only to draw attention away from A's embarrassment by focusing on K's own mistake.

Turn back now to example (5) in which the male K calls the female Y licentious. Notice that here too immediately after seriously overstepping the bounds of propriety, K says, zya, sono teido de kyoo wa kekkoo desu node, 'Well, uh, with that, since we've got enought for today,'" in preparation to end the interview. This interview also was scheduled to continue beyond this point.

These examples demonstrate that the intruder also suffers from the effects of intrusion. In the cases under consideration, the intruder has been the interviewer, the person in control of the conversation. The person in control has the possibility of flight since this is the person who can terminate the interview at will. In both of the cases, the interviewer chooses this course of action.

To summarize, there are specific verbal and nonverbal reactions to breaches of propriety or politeness. These reactions may occur in both the intruder and in the one intruded upon. The intruder, in gross breaches of propriety, opts for flight. The one intruded upon has two courses of action in the situations presented here: aggression or defense. Agressive behavior may be signalled by a shift in politeness level downward, away from

polite speech to nonpolite speech. The manifestations of this may be in the suppression of the politeness morphemes desu and -masu, or it may be in nonverbal behaviors such as tone of voice, use of contractions and ellipses, and use of personal pronouns to refer to the addressee. Defensive behavior may be signalled by a shift upward in politeness level. This includes the use of the polite morphemes desu and -masu, looking downward, laughing, hand gestures, or the nonellipsis of nonessential information.

In conclusion, I feel it important to state that this study is not meant to represent the final word on this subject. Rather, its purpose is to indicate that the linguistic study of features of a language may best be studied within a context which allows the examination of various forms of communicative activity.

NOTES

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JAPANESE USE OF ENGLISH LOANS

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The study of a group's language use generally concentrates on the native language(s) of the group. In the case of the Japanese, it is necessary in a linguistic treatment to mention the pervasive influx of English terms and phrases into the Japanese lexicon and everyday speech, an influx which has been estimated to be in excess of 50,000 words.[1] If this estimate is even remotely accurate, English has been borrowed at a rate far exceeding the French loans into English over a similar time span.[2] Much of the borrowing has occurred since 1945 when the American presence in Japan began in such large numbers. The impact of English includes daily television fare, where

bilingual programs are offered daily on Japanese channels.[3] The pervasiveness can perhaps be symbolized by Japanese advertizers who use English phrases such as Kanebo's "For Beautiful Human Life"; the best symbol may be the English slogan used by the Japan National Railway, to advertise Japan to Japanese: "DISCOVER JAPAN." Several studies of English loanwords have been made,[4] so that this essay is necessarily based on those studies while adding a few of the most recent loans[5] and treating the grammatical restrictions on the borrowings. The several treatments of semantic shifts, neologisms in English loans, cultural bases for pragmatic differences, and so on complement the basic linguistic analysis presented here.

In the history of Japan, the 5-6th centuries influence of Chinese culture and language had a profound impact. Japanese, an agglutinating[6] Subject-Object-Verb[7] language, is genetically unrelated to the isolating[8] Subject-Verb-Object Chinese language[9]. The history of Japanese borrowing and adopting of the Chinese writing system as well as thousands of morphemes has been well treated in the literature.[10] Chinese has entered Japanese in historical layers, including various Buddhistic elements from India. In fact, not only are the names of many deities ultimately from

Sanskrit, but also the organization of the Japanese syllabary. European influence did not occur until 1542[11] when the Portugese missionaries first arrived, preceding by a few years the Dutch traders. Few frequent loanwords survive from these two languages; the most often cited is ^{J}/pan/ from the Portuguese "pan" for bread and ^{J}/koppu/ from the Dutch "kop" for a small glass or a cup. Dutch was <u>the</u> European language studied during the Tokugawa era (roughly 1600-1867 A.D.) while the country was closed to outside contact. Russian whalers and traders made contact in the 19th century, especially in the sparsely populated north which is only a short distance from Russian territory now. Following Perry's 1853 mission to open Japan and the establishment of Townsend Harris as America's first minister to Japan, the Japanese saw English as the <u>lingua franca</u> and began the process of emphasizing English. Since 1945, the influence of English has increased almost geometrically; for example, most Japanese students begin English lessons about the eighth year in school. As in most countries with a written tradition, this foreign influence is periodically denounced as corrupting the language and culture--as France is again rejecting English loans such as "hot dog," "hamburger," and so on today. It is ironic

that the language used to denounce foreign corruptions is replete with Chinese loans of earlier historical periods. To quote Miller (1967:57-58):

> The ultra-nationalists of the late 1930's and 1940's fought a somewhat pointless battle against what they considered the "foreign" elements in Japanese, and attempted a "purification" of the language by replacing European and American borrowings with loan translations and neologisms based, incongruously enough, on Chinese lexical elements. Thus, to replace bēsubōru from English "baseball" the neologism yakyū, using two Chinese loanword morphemes, ya "field" and kyū "ball", was coined. This is one of their "reforms" that has survived to the present time; it remains in the modern language in active competition with the original English loanword, and is actually favored above the loanword in newspaper usage since it requires less space to print.

It is not the task here to decide when a loan becomes a regular part of the language lexicon and loses the psychological force of a lexical code-switch, that of a conscious change to English for a certain "rhetorical" effect. The task below

consists of specifying the restructuring of English phonology as borrowing occurs, some of the patterns of change that occur, and some grammatical properties of the results.

The first task involves the phonological restructuring of English words as they are Japanized. The description here is not, in the interests of space and time, a full linguistic one, but is a general depiction of the consonants, vowels, and their combinations that are "reasonably" close to those in the other language. Those who want to pursue a phonemic treatment may prefer Han[12] and the generativists will prefer McCawley[13] or later treatments. Herein the English and Japanese consonant inventory will be listed as:

English						Japanese				
p		t	č	k		p	t	č	k	
b		d	j	g		b	d	j	g	
f	θ	s	š		h		s	š		h
v	ð	z	ž				z			
m		n		ŋ		m	n			n(syllabic)
w		y				w	y			
		r,l					r			

Vowels are:

English		Japanese	
i,I	u,U	i	u
e,	o	e	o
a		a	

Syllable structure of Japanese is: (C) (y) V
while /p, t, č, k, b, d, j, g, N/ may be syllabic.

The syllable structure means that some single syllables in English are borrowed as multiple in Japanese:

^{E}"strike"	^{J}/su-to-ra-i-ku/	5
^{E}"glimpse"	^{J}/gu-ri-m-pu-su/	5

Allophonic rules which affect borrowing include the following:

^{J}/t+i/ = [či]	^{E}"team" = ^{J}[či-i-mu]
^{J}/t+u/ = [tsu]	^{E}"two" = ^{J}[tsu-u]
^{J}/h+u/ = [øu]	^{E}"who" = ^{J}[øu-u] or now [f] for ^{E}/f/

Historically most words have been borrowed "visually," as elaborated below, as if "r-less." That is, ^{E}/r/ finally or before a consonant in the same syllable is treated as a lengthening of the preceding vowel.

^{E}"bar" = ^{J}/ba-a/
^{E}"hard" = ^{J}/ha-a-do/

Earlier in borrowing history, the fact that ^{J}/i,u/ became voiceless after voiceless consonants, especially <u>between</u> voiceless consonants, and finally led to <u>C+u</u> as a common restructuring. However, since ^{J}/u/ after ^{J}/t,d/ results in an "s" or "z" sound audible to English speakers (^{J}[tsu, dzu]), the preferred forms later used ^{J}/o/. An example is:

^{E}"truck" = ^{J}[tsu-ra-k-ku]*
= = = ^{J}[to-ra-k-ku].
(now)

A highly selected list of example loanwords follows, all taken from a single source, the June, 1982, issue of FOORAMU, the English Language Education Forum, sponsored by the Ministry of Education:

Letter	KATAKANA	English	Letter	KATAKANA	English
A	ajia	Asia	B	bitto	bit
	afurika	Africa		buusu	booth
				buraun	brown
C	kasetto	cassette	D	deeta	data
	chekku	check		dibeeto	debate
	karaa	color			
E	enerugii	energy	F	fasshon	fashion
				furai	fry/fly
				fikushon	fiction

Letter	KATAKANA	English	Letter	KATAKANA	English
G	geemu	game	H	hinto	hint
	guruupu	group		horoguramu	hologram
	gurafu	graph			
I	intoneeshon	intonation	J	peeji	page
	intenshitii	intensity			
K	chekku	check	L	reberu	level
	chooku	chalk		retto	let (tennis)
M	media	media	N	nooto	note
	misu	miss		bijinesu	business
O	ooraru	oral	P	pataan	pattern
	mesoddo	method		posutaa	poster
Q	--	--	R	reezaa (could be - razor)	laser
S	suteppu	step	T	teepu	tape
	sairento	silent		tesuto	test
U	fooramu	forum	V	bideo	video
	suupaa	super			
W	waaku	work	X	kontekusuto	context

Certain English phonemes are indicated by combinations:

$^{E}/æ/$ by $^{J}/ya/$ as in "gyappu" for "gap"

Most of the substitutions are exemplified above:

$^{E}/ð/ = {}^{J}/z/$ $^{E}/θ/ = {}^{J}/s/$ $^{J}/z/ = {}^{J}/j/$ before /i/

Note also that, while native Japanese allows only voiceless consonants to be combined, as in "nippon,

katta, kekkoo", loan words have no such restriction: "rabbu, beddo, baggu" for English "rub, bed, bag,"

The full treatment of English loans covers many more areas than this limited study. For example, some words were borrowed "by ear" and established before a "spelling" version was used. Miura cites J/jiruba/ = E"jitterbug" as one example. Many words are borrowed with different or specialized meanings, some with restricted usage, and so on. These important parts of the full study of loans are noted in the bibliography. The treatment below is limited to an analysis of the ways in which the English loans are combined or abbreviated, often to an extent which prevents the English speaker who has studied Japanese and is in Japan from understanding the word or phrase.

Before the treatment of the seven types of borrowings used herein, this section notes a few examples of words borrowed with a shift or narrowing of meaning. J/aasu/ for "earth" is used for the electronic "ground." J/kuriimu/ for "cream" does not usually extend to the dairy product, but only the type as in "face cream." J/arubaito/, from German "arbeit" = "work", means part-time work. J/abekku/, from French "avec" = "with", means a (young) couple or date. Many examples occur in this rather usual development in borrowing.

The seven types of borrowing patterns treated herein begin with the simplest type of abbreviation, one which occurs in many languages, and is a dropping of all syllables after the first two or three.

E"apartment"	J/apaatomento/	=	J/apaato/
E"television"	J/terebijon/	=	J/terebi/
E"building"	J/birujingu/	=	J/biru/
E"inflation"	J/infureeshon/	=	J/infure/
E"deflation"	J/defureeshon/	=	J/defure/
E"connection"	J/konekushon/	=	J/kone/
E"cutlet"	J/katsuretsu/	=	J/katsu/
E"sandwich"	Jsandoitchi/	=	J/sando/
E"guarantee"	J/gyarantii/	=	J/gyara/
E"negative"	J/negachibu/	=	J/nega/
E"positive"	J/pojichibu/	=	J/poji/

and so on. The use of these forms varies in frequency in various fields, types of newspapers and magazines, and so on. For example, in the high level, highly edited FORUM issue cited earlier, only the high frequency J/terebi/ loan abbreviation was found. It is in ordinary conversation, that is, a casual or colloquial style, that a high frequency of these forms is found. In consultative or formal styles, especially in print, their frequency is lower.

The second type of abbreviation is also found in many languages; its complexity occurs when it is heard rather than seen. The use of first letters of words in a phrase is common in English, as in "scuba" from "self-contained underwater breathing apparatus." In fact, many native speakers do not know the full form. The Japanese have examples of English loans which they treat as initials.[14] "PR" is used in both languages in print; the difficulty for the non-native, non-initiate is the spoken J/piiaaru/. Other examples include J/biijii/ from "B.G." for "business girls" which is now more frequently J/ooeru/ from "O.L." for "office lady." "DK" occurs in current house ads for "dining-kitchen," a Western-style organization of rooms. J/oobii/ from "OB" may sound to the English ear like the hospital room, "obstetrics," but in Japanese it refers to a fellow alumnus, an "Old Boy."

A third type of example occurs in "Y" used as a letter combined with J/shatsu/, as in "Yshatsu" for J/waishatsu/. The last is a short form for E"white shirt", which has the meaning of a formal Western shirt used by businessmen, etc. Thus it is possible to buy a J/kiiroiwaishatsu/ or "yellow white shirt."

The fourth is the type of loan treated by Miura as a pseudoloan. Japanese uses borrowed words and phrases to create new English items which may or may not be understandable to the native English speaker. For examples,

J/wan man kaa/	literally	"one-man car"
J/wan man basu/		"one-man basu"

refers to a car or bus in which the driver must collect the fares rather than having a "conductor" or "ticket-taker."

J/naitaa/	literally	"Nighter: refers to a night baseball game.
J/furu-muun/	literally	"full moon" is, by analogy to "honeymoon", a journey by a long-married couple (as if "second honeymoon")

J/sukin-shippu/ literally "skin-ship" is, by analogy to "friendship," a relationship close enough for touching behavior. These examples of Japanese-created English "loans" are proliferating and mark the advanced stage of language borrowing in which the grammar patterns of the nonnative language become themselves productive rules.

A fifth type of borrowing involves English loans and Japanese vocabulary. Combining loans and native words is one of the most popular practices in

the current use of the Japanese language. Classic examples include ^{J}/ame yoko/ ("American" + Japanese "yokochoo" or "alley", where shops and stores sold American goodies), ^{J}/meriken ko/ ("American" + Japanese "kona" or "flour", meaning "wheat flour", now obsolete), and ^{J}/meriken hatoba/ ("American" + Japanese "hatoba" or "pier", where American freighters anchored). The productivity of this combinatory device is most conspicuously observed in neologisms made by college students who, thanks to their knowledge of English and inclination to create in-group patois, enjoy employing this word-formation mechanism to the fullest possible extent. A few current examples of this kind are combinations coined to distinguish the types of Japanese students in terms of their cultural and cognitive behavioral patterns on the campus of the International Christian University in Tokyo, the most multiethnic institution of higher education in Japan:

^{J}/hen japa/ from ^{J}/hen(na)/ 'strange' + ^{E}"Japanese"
^{J}/han japa/ from ^{J}/han(bun)/ 'half' + ^{E}"Japanese"
^{J}/hon japa/ from ^{J}/hon(to-no)/ 'real' + ^{E}"Japanese"

The integration of loan words into the Japanese grammatical system, as just exemplified, is further evidenced by English loans being treated as regular

Japanese verbs, as in ^{J}/memoru/ from "memorandum" + ^{J}/-ru/ and ^{J}/demoru/ from "demonstration" + ^{J}/-ru/. The adjective "now" as in "the now generation" is used with the Japanese adjectival ending ^{J}/-i/, as in ^{J}/nau-i/.

The sixth type of loan is an evolution of the fifth. When loans and vernacular are homophonous, their combinations create more sophisticated phrases. For example, in "Getsuyoobi-wa suwanai-dee," (^{J}/getsuyoobi/ = "Monday"; ^{J}/wa/ = topic marker; ^{J}/suwanai/ = "smoke" + negation) a slogan put up at a Japan National Railways station in Tokyo, dee is ambiguous. It is possible to interpret it as a loan from the English word "day" or as a Japanese particle conveying request. In formal style the form is ^{J}/de/ with the short post-consonantal vowel followed by ^{J}/kudasai/ = "please." In informal style, however, it can become ^{J}/dee/ with the long final vowel, making the request more casual. In the first interpretation, the whole sentence is read as "Monday is a non-smoking day," and in the latter as "Please do not smoke on Monday."

An example that is more significant in the development of the borrowing practice is "This 伊豆 Map," ("This" + ^{J}/izu/ + "map") a Japan National Railways advertisement copy designed to promote

tourism in the Izu Peninsula west of Tokyo. In this phrase, "I-Zu" (two Chinese characters) is homophonous with the Japanese pronunciation of "is" and expected to pun with it, and to mean "This is a map of Izu." It is important to notice here that the English grammatical pattern is becoming the object of borrowing. The absence of an appropriate article in this case may indicate that grammatical borrowing has not been perfectly achieved, yet the final ^{J}/u/ of "Izu" may be interpreted as the article "a" by an American listener.

Another sophisticated example is ^{J}/bi sairento/, in which ^{J}/bi/ (Chinese character 美 meaning "beauty") rhymes with "be." Persons of some knowledge of English can easily interpret the sentence either as "to be beautiful is to be silent," based on Japanese phraseology, or as "be silent," based on English syntax. Although the real fun lies in the discovery of the fact that something nice can be said if loan and native words are homophonously combined, it is important to recognize that an attempt is being made to achieve grammatical borrowing, perhaps the final major stage of the development of language borrowing. As of now, grammatical borrowing is apparently restricted to the imperative word order as in "Be + Complement", as noted above, and to the "Verb + Object"

construction as seen in J/sutoppu za infure/ = "Stop the inflation". If careful observation witnesses further evolution in this direction, it will no doubt contribute to the clarification of many theoretical issues in language in contact. This is what makes studies of Japanese loans from English one of the most interesting topics in the exploration of language sciences.

The seventh type of English loan is the primary focus of this study because its use seems to be proliferating in the last few years, especially in the field of computers and other high technology fields. The linguistic process noted here is an old one in Japanese, resulting in well known examples such as

東京大学　　東大
Tokyoo Daigaku = Too dai
Tokyo University = Tokyo U.

The general linguistic rule is that the abbreviated form of a phrase takes the fist syllable of a two syllable word or the first two syllables (including first two consonants) of a multi-syllable word. The resulting form is often difficult for students of Japanese on their first exposure to language use in Japan. The examples noted here are far from exhaustive, yet may show some of the range of abbreviated forms currently used in Japan. One extended example is given here. In September of

1982, the Isetan Department Stores were advertising a "Waa Puro Fea." Those Japanese speakers consulted who had been away from Japan for 5 years or more could not recognize the subject:

^{J}/waado purosesaa fea/ = "Word Processor Fair."

Another contemporary example is found on several ads around Japan for a

^{J}/paso kon/ from ^{J}/paasonaru konpyuutaa/
"Personal Computer"

Examples abound in Japanese at this time; the process is a productive one. A representative sampling of abbreviated loan phrases follows. Those in set 1 have been used many years and may be "old fashioned," those in set 2 are in common use, and those in set 3 are rather recent.

1. These have been in use:

afu(taa) reko(odingu)	af(ter) reco(rding)
bifu(teki) katsu(retsu)	beef(steak) cut(let)
mo(daan) ga(aru)/bo(i)	mo(dern) gi(rl)/bo(y)
ofu(za) reko(odo)	off (the) reco(rd)
supi(ido) gura(fikku)	spee(d) gra(phic) [camera]
su(teipuru) fu(aibaa)	s(taple) f(iber)
hai taku(shii)	hi(red) tax(i)

2. These are in use:

han(gaa) suto(raiki)	hun(ger) st(rike)
en(jin) suto(ppu)	en(gine) st(op)
katsu(retsu) sando(itchi)	cut(let) sand(wich)
koon(do) bifu(teki)	corn(ed) beef (steak)
kure(yon) pasu(teru)	cra(yon)-pas(tel)
pan(ti) suto(kingusu)	pan(ty) st(ocking)
puro(feshonaru) resu(ringu)	pro(fessional) wres(tling)
seko(ndo) han(do)	secon(nd) han(d)
tore(eningu) pan(tsu)	tra(ining) pan(ts) [sweat pants]

3. These are probably recent:

an(daa) gura(undo)	un(der) gro(und)
ooto bai(ku)	auto(matic) bi(cycle)
rimo(to) kon(torooru)	remo(te) con(trol)
rori(ta) kon(purekkusu)	Loli(ta) com(plex)

KATAKANA	ENGLISH
ere(ki) gi(taa)	ele(ctric) gui(tar)- or elec(tric)
suta(rusuki) hatchi	Starsky (and) Hutch [TV series]
raji(o) kase(tto)	radi(o) casse(tte) [portable] player]

tere(bi) kase(tto)	tele(vision) casse(tte) [portable]
mini(achua) kon(pyuutaa)	mini(ature) com(puter)
mai kon(pyuutaa)	mi(cro) com(puter)
ofu(isu) kon(pyuutaa)	of(fice) com(puter)
waa(do) puro(sesaa)	wo(rd) pro(cessor)

IN CONCLUSION

The rapid growth of a large English stratum in the vocbulary of Japanese is paralleled by a proliferation of linguistic uses of those loan words. The sociolinguistic reasons for the easy acceptance and the linguistic descriptions of the various rules being used will be the subjects of much research to come in the future. This presentation is but a first approximation of the current interesting features of the Japanese treatment of English loans, including the "nau-i" use of the double abbreviations in "high-tech" vocabulary.

NOTES

[1]Dictionaries, which usually lag behind changes in usage by several years, show a remarkable increase in officially accepted loans. The 1965 GAIKOKU KARA KITA SHINGO JITEN (translated on the cover as "Dictionary of Fresh Words from Foreign

Languages," Shueisha, 1965) contains some 10,000 entries, while KONSAISU GAIRAIGO JITEN (CONCISE LOANWORD DICTIONARY, Sanseido) of some seven years later contains over twice that many. The estimate in the text is an unofficial one concerning current usage, popular, business, scientific and so on.

[2]Currently the percentage of loanwords from French, over the last nine centuries, in the 10,000 most frequently used vocabulary items is over 40%; in running text the percentage is over 15% (Williams 1975: 67-68). However, after the French conquest of England in 1066 and the subsequent establishment of French as the "official" language, only 9 French words were used in English documents in the 12th century and 134 in the 13th century (Ibid.: 83).

[3]In Hoffer (1982) the several dozen American TV shows shown in Japan are listed.

[4]The bibliography contains several sources available to the reader of English. Others are available in Japanese.

[5]Many of the examples listed were collected in and around Tokyo in August-September, 1982.

[6]Lehmann (1976) has an example (p. 134).

[7]Greenberg's (1966) treatment of syntactic types shows that many features of the syntax of a language are predictable from its basic order of subject, object, and verb.

[8]Sapir (1921) has a basic treatment of the differences.

[9]In addition, Chinese is a tone language, where height and direction of pitch changes are structurally important. Japanese is a terrace tone language, where not the two pitch levels but the points of rise or drop are structurally important. Pike (1947) treats these features in detail.

[10]One example is Miller (1967). He notes (p. 104):

> By the beginning of the eighth century this group of [Chinese] words had been so completely assimilated into the language that to most Japanese they were no different from any other part of the Japanese vocabulary.

The major difference between Chinese loans in the 8th century and English loans in the 20th is that the 8th century used Chinese writing, which blended the loans, while the 20th century uses a special syllabary, the Katakana, to transcribe loans. Thus, the loans remain, in terms of psychological impact,

as loans, as foreign, as something visually set apart. The reader who knows no Japanese might note these examples.

In Chinese characters, or Kanji, the word for "book" is 本 . (^{J}/hon/)

If in the basic syllabary, Hiragana, ほん.

If in Katakana, ホン.

[11]A brief treatment is available in Reischauer and Fairbank (1958), pp. 588-589.

[12]Han's treatment, while using acoustic features, is a basic phonemic treatment.

[13]McCawley's generative phonology has gaps in the sequence of rules, gaps which themselves violate the principles of a generative treatment. It remains, however, a basic contribution to the generative phonology of Japanese.

[14]The CONCISE LOANWORD DICTIONARY contains 70 pages of examples of English initials used in Japanese, including such well known English examples as AAA, ABC, C&W, FBI, RPM, PCB, VIP, and so on.

SOME DISCOURSE PRINCIPLES AND LENGTHY SENTENCES IN JAPANESE

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1. Introduction

This is part of a research on length and structural complexity of Japanese sentences in view of clarity of expressions in a discourse. This paper deals with structural potentiality for permitting lengthy sentences, focusing on the connective particle te and infinitive ending.[1] The data consist of radio and television news reports mainly by NHK (Japan Broadcasting Corporation), press reports, essays, and a novel. My previous work, jointly carried out with I. Hirata, will be referred to in the discussion of stylistic differences of te and infinitive ending. In this work on style, compositions of pupils from the first to the ninth grades are used in order to see the process of learning stylistic distinctions. Radio, television, and press reports are used as

main sources for the present research, partly because clarity of expression is the foremost requisite for news reporting, and partly because each news item is a discourse unit of reasonable size.

The purpose of this study is to pin down semantic similarities and differences of the two connective forms, namely, te and infinitive (abbreviatied hereafter as I form or simply as I) endings, which serve the need of meeting discourse principles structurally or non-structurally determined in Japanese. In Section 2, the average lengths of sentences in various types of discourse are compared. Next the number of sentences in Japanese and English discourses are compared using the Japanese and English versions of NHK television news at 7 p.m. on March 10 and [illegible] In Section 3, certain discourse principles, together with structural characteristics, are given to account for the length of sentences in Japanese discourses. Section 4 and 5 concentrate on the analysis of te and I forms, the former section dealing with stylistic distinction, and the latter semantic distinctive features. The last section will be a summary and a future prospect for this research.

2. Average length of sentences in various types of Japanese discourse

The NHK radio news at 7 p.m. on March 9, 10, 11, 1982, NTV (Nippon Television) "Just News" on the same days, and NHK "News Center 6:30" on March 11, 1982, were all transcribed in the standard Japanese writing style. The length of a sentence is measured by the number of letters, including Chinese characters and kana.[2] The average length of sentences in these news reports are compared with those in a novel Zyo no Mai (A Preliminary Dance) by Tomiko Miyao, and short essays Nihonzin no Situmon (Questions by Japanese) by Donald Keene. Table 1 gives the result of comparison.

Table 1.

	Average Number of Letters in a Sentence
(a) Press reports	65.8
(b) NHK radio news, 7 p.m.	79.5
(c) NTV Just News	70.8
(d) NHK, NC 6:30 p.m.	55.9
(e) Zyo no Mai[3]	98.6
(f) Nihonzin no Situmon[4]	48.0

(The press reports above are taken from the first page of the morning edition of the Asahi on December 29, 1982).

The relevant points revealed by this comparison are as follows:

(i) Among the reports orally given, namely (b), (c) and (d), (b) and (c) are longer than the press reports (a). This is mainly due to polite endings and honorific expressions in formal spoken style.[5]

(ii) Among all the news reports, (d) has the shortest average length. As (d) is for local news reporting, the style of delivery is rather informal and sentence final elements such as sentence particles and modals are more frequently used to appeal for involvement of the audience. Thus the reports in (d) are in a sharp contrast in this respect with those of (a), (b) and (c), which share the characteristic of formality. In fact the reports in (c) are less formal in style than those in (b), because the former is broadcast by a private television network. Compare its length with that of (b).

(iii) The data from the novel Zyo no Mai, (e), has a distinct characteristic of long sentences with modifiers, quotes and other embedded sentences strung together. In sharp contrast with this are (f), the essays by Donald Keene, who is a non-native speaker of Japanese but an expert in Japanese prose writing. His sentences are short, precise, and clear in expression, making them models for Japanese composition.

The data in Table 1 are in the standard style of transcription in which Chinese characters are used mostly for content words and kana, Japanese syllabic letters, for functional elements. In English, words are basic units of a sentence, and

each word may consist of any number of letters, usually from one to several. Therefore, it is impossible to make a direct comparison of lengths between Japanese and English sentences by simply counting letters in both of them. The NHK television news at 7 p.m. is broadcast both in Japanese and English. However, the English version is not a literary translation of the Japanese version, but rather an attempt to convey the same content. The next comparison is, therefore, in terms of number of sentences used for each news item. The NHK television news at 7 p.m. on March 10, 1982, consists of 9 news items, while the March 11 broadcast consists of 8. In Table 2, each news item is numbered 1, 2, 3, etc., followed by its key word.

Table 2. Comparison of the number of sentences in each news item in the Japanese and English television news reports

March 10	Number of Sentences	
	Japanese	English
1. The Japan US Trade Subcommittee	7	11
2. The Upper House Budget Committee Meeting	8	18
3. Statement calling for revision of Japan-U.S. Security Treaty	8	11
4. Aviation Negotiatons	5	8

March 10	Number of Sentences	
	Japanese	English
5. Visit of the Italian President Mr. Pertini	7	10
6. The Hotel New Japan	7	15
7. The Lockheed Pay Off Case	4	10
8. Taiwanese who served as Japanese soldiers	4	6
9. Weather Forecast	6	9
Total	56	98

March 11	Number of Sentences	
	Japanese	English
1. The Upper House Budget Committee Meeting	10	19
2. Visit of the Italian President Mr. Pertini	11	14
3. Mr. Asukata's Visit to European Countries	4	7
4. Opening Official Documents to Public	8	15
5. The Namirei Case	6	8
6. Mr. Toshio Doko's Decision	3	5
7. The Screening System of School Textbooks	5	8

March 11	Number of Sentences	
	Japanese	English
8. Public Hearings for the Coming Fare Increase by the Japan National Railways	6	9
Total	53	85

(The narrations attached to the telecast of actual scenes are omitted from both the Japanese and English versions).

Table 2 indicates that the Japanese version uses substantially fewer sentences for the same news items than the Engish version, reflecting an inverse relation of sentence number and sentence length; that is, the Japanese version uses longer sentences than the English version.

3. Discourse principles to account for lengthy sentences in Japanese discourse

As is well known, preference for long or short sentences determines the author's style to a certain extent. For example, Hemmingway is noted for his preference for short sentences, while Faulkner is famous for using one long sentence for one paragraph. The writing style of Miyao, the author of Zyo no Mai, is also distinct in its use of long sentences. However, in news reporting the need for

precision and clarity has priority over stylistic preference. Thus the preference for lengthy sentences in Japanese news reporting must be explained from a viewpoint other than consideration of stylistic preferences.

Two discourse principles are given below. One is induced by structural characteristics of Japanese, while the other is a discourse characteristic which seems to cause structural adjustment. This is actually the interface of discourse and structural principles.

Discourse Principle I (DP I):
Avoid the repetition of the same sentence final forms.

One of the structural characteristics inducing DP I is the Japanese basic word order, SOV. As a verb final language, in Japanese every sentence ends with a verb, an adjective, an aspectual verbal, or a modal unless it is further followed by sentence particles. The second structural characteristic relevant to this discussion is that the inflectional endings for perfect and non-perfect tense are ta and ru respectively, with very little phonetic variation. If short sentences are used one after another, the chances are that the same sentence

final forms with ta or ru will be repeated, thus disobeying DP I. Sentence particles have performative functions such as interrogation, command, assertion, insistence, etc. with the implication of solicitation of audience involvement, so that they cannot be freely used in news reporting. There are some modals such as daroo or desyoo (presumptive) which do not accompany tense endings, but the use of these modals are limited in news reporting. Thus the use of a series of short sentences is avoided to meet DP I.

The second discourse principle to be proposed here was originally given by Kamio (1979). Accounting for the use of "direct forms," that is, sentence final forms without sentence particles or modals, Kamio introduces the idea of "the speaker's territory of information." "It thus seems that a conceptual category functions within the speaker by which information that belongs to him is distinguished from information that does not. This category may be labelled as the speaker's territory of information. Given this category, it can be stated that it is information accommodated in the speaker's territory of information that is conveyed by statements in the direct form."[6] Thus it is impossible for a Japanese to use the direct form when stating other people's perception or

psychological state. Example (1) below is unacceptable because it violates this principle.

(1) *Katoo-san wa onaka ga itai
stomach ache

Mr. Kato has a stomachache.

Due to the same restriction, (2) is unacceptable, while the English counterpart (3) is acceptable.

(2) *akanboo wa milk ga nomi-tai
baby drink want

(3) That baby wants to drink milk.

Discourse Principle II (DP II):

When conveying information obtained through sources other than the speaker's own experience, add sentence particles or modals to indicate that it is outside the speaker's territory of information.

DP II induces the structural distinction to be made by using direct or non-direct sentence final forms. Due to this discourse principle, use of series of simple sentences gets cumbersome with repeated indication of whether the information is inside or outside the speaker's territory of information. Inoue (1982a) discusses the use of to yuu (says that) indicating the sense of 'hearsay,' that is, information outside the speaker's territory.

It can be said that the interplay of structural properties and discourse principles causes the tendency to make sentences longer in a Japanese discourse. This idea is supported by the fact that in data (a) and (b) in Section 2, in which use of sentence particles is restricted, sentences are longer, while in (d), where an informal spoken style can be used depending on the topic, use of sentence particles and modals is less restricted and the sentences are much shorter than those in (a) and (b).

There are various structural devices inherent in language for enabling the increase of sentence length ad infinitum. As an SOV language, Japanese left-branching constructions are used for relativized and nominalized clauses, and other types of subordinate clauses, without causing too much difficulty in understanding. As is well known, left-branching causes less difficulty in language processing than right-branching and center-embedding. The last mentioned is the most difficult in this respect. The structural complexity in relation to understanding is being studied as part of this research project.

Coordination is another device for constructing lengthy sentences. The two connective forms given in Section 1 represent this type of connective. They are most frequently used interchangeably to

avoid repetitious use of one or the other form. Substitution sometimes causes only stylistic change, but at other times it results in loss or addition of semantic content. Section 4 will give a summary of our previous work on stylistic differences of the two forms, followed by Section 5, which deals with semantic similarities and differences in order to see which combinations of semantic distinctive features naturally lead to multiple conjoining.

4. Stylistic distinction made by the use of te and I forms

Inoue and Hirata (1978) studied the distributions of connectives, te and I forms, together with other connective particles, in (A) improvised speech of educated adults, (B) formal writing, and (C) informal writing. The data used are as follows:

Data A: a transcription of a 45 minute discussion on politics, telecast by NHK.

B: Newspaper editorials and news reports on political issues, totaling 505 sentences.

C: essays and commentaries on everyday life that appeared in newspapers, totaling 493 sentences.

In (A), 24 kinds of connective particles (abbrevated as CP) were found, with the number of occurrences totaling 438. Among them the occurences of te amount to 151, while those of I are only 5, i.e., 34.5% vs. 1.1%. In contrast to (A), (B) has a reverse situation. Among 34 kinds of CP's, with a total CP occurrences of 466, te appears 80 times, while I occurs 172 times, i.e., 17.2% vs. 36.9%. (A) and (B) are two extremes, while (C), the data from informal writing, shows an intermediate distributional situation. In (C), among 395 CP occurrences, te with 107 occurrences, is close to I with 84 occurrences. The ratio is 27.0% vs. 21.3%.

These distributional factors clearly show that te belongs to informal style, and I to formal style. However, it cannot be ignored that in (A), data from improvised speech, 1.1% occurrences of I are found, while in (B), data from formal writing, 17.2% are occupied by te. This suggests that among these are included non-mutally substitutable te and I forms.

Our work on the process of acquisition of these connective forms revealed that I starts to show up in children's writing as a rare case in the second grade, and gradually gains ground, finally reaching the stage of Data (C), informal writing, in the ninth grade. On the other hand te is the most

frequently used CP from the first grade through the end of the ninth grade. This is exactly as expected: children first learn an improvised spoken style on public occasions, exemplified by (A), which is very much less formal than informal adult writing (C). They gradually learn informal writing style. My data shows that there is a notable leap in the frequency order of I in the eighth grade. Figure I shows the frequency orders of the five most frequently used connective particles. Data D consists of 501 compositions, about 55 for each grade from the first to the ninth, with each composition averaging 800 words.

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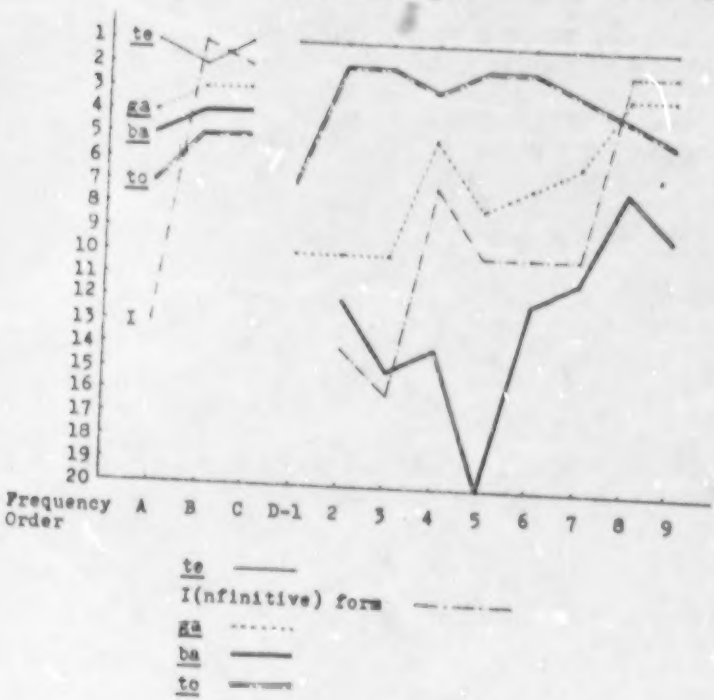
Figure I Comparison of frequency orders of te, I, ga, ba and to in Data A - D



5. Semantic distinctive features

The following seven sentences exemplify different uses of te and I forms.

(4) kodomo-tati wa denki o kesite, toko ni haitta
children light turn off bed entered

(Sequential)
(te-1)

After turning off the lights, the children went to bed.

(5) Taroo wa zubon o yogosite,
pants stain

okaasan ni sikar-areta (Reason)
mother scold Passive Perfect (te-2)

Taro was scolded by his mother, because he stained his pants.

(6) sensei wa kotae o sitte-ite, siranai
teacher answer know do not know

huri o site-ita (Contradiction)
pretended (te-3)

Even though the teacher knew the answer, he pretended that he did not know it.

(7) Katoo-san wa OHP o tukatte, setumei sita
overhead use explained
projector

(Means)
(te-4)

Mr. Kato explained by using an overhead projector.

(8) kodomo-tati wa denki o kesi, toko ni haitta
I

(Sequential)
(I-1)

(Essentially the same meaning as (4), with a slight difference in style).

(9) sikaisya ga maiku no mae ni tati, paneristo
I

presider microphone in front of stand panelist

ga seki ni tuki, subete yooi ga dekita
seats take all preparation made

(Coodination)
(I-2)

The presider stood in front of the microphone, and the panelists took their seats. Preparations were all finished.

(10) Yamada-san wa ronbun o honyakusi, Katoo-san
I

paper translate

wa taipu o utta (Contrast)
typed (I-3)

Mr. Yamada translated the paper, and Mr. Kato typed it.

Three semantic distinctive features are proposed here to account for these semantic similarities and differences of te and I forms. In Figure II they are given in a feature matrix.

Figure II.

	Dependent	Sequential	Instrumental	
te-1	+	+	-	(Sequential)
te-2	+	+	+	(Reason)
te-3	+	-	-	(Contradiction)
te-4	+	-	+	(Means)
I-1	-	+	-	(Sequential)
I-2	-	-	-	(Coordination)

I-3 is omitted from the above figure, because it is a subclass of I-2 and can be distinguished from I-2 by its syntactic characteristic, which will be discussed at the end of this section.

The feature [Dependent] represents the status of the sentence preceding te (S_1) as one dependent on the following main sentence (S_2). Since the S_1 in (4), for example, is subordinate to S_2, it gives the sense of close connection between the two sentences. To put it differently, it has the sense that S_1 is attached to S_2 as a dependent clause. Murayama first noted the close connection of the two conjoined sentences expressed by te-1. (personal communication). The feature [Sequential] represents the sense that conjoined sentences express events or actions taking place one after another, precedence relation in other words. Te-1, te-2, and I-1 share this feature. Let us first compare te-1 and I-1, using (4) and (8) as

illustrations. In both, the action of turning off the light is followed by the action of going to bed, keeping the sequential order. Due to the presence or the absence of the feature [Dependent], there is a slight meaning difference; namely, in (4) the two actions are expressed as closely connected, while in (8) only the sequential sense is expressed. Before turning to the other examples, let us see whether these two features can account for the uses of te and I forms in my data. Sentence (11) - (14) given below are from the data of NHK television news on March 10, 1982.

(11) Suzuki-sooridaizin wa ... seihu to site wa
Prime Minister government

sono keturon o sontyoosi-tai to dake
that conclusion give serious only

nobe, syotokuzei-genzei no zissi no
state-I income tax cuts implementation

ziki ni tuite wa hikituzuki genmei o
time concerning continued statement

sake-masita
avoided

Prime Minister Suzuki only said that the government wants to give serious consideration to that conclusion, but again he did not commit himself as to the time of implementation of income tax cuts.

(12) ... Kase-si wa ... motomoto kono mondai wa
by nature this problem

America kara iw-areru mae ni Nihon mizukara ga
from say Passive before herself

kangaeru-beki da to omoi, aete kono ziki ni
consider should think-I, dared this time at

mondai o teiki-sita ...
problem raised

Mr. Kase said that he thought this problem should be given due consideration by Japan herself before the U.S. raises the question, and pointed out the problem at this time ...

(13) ...Nihon-gawa wa konkai no koosyoo ni atatte,
this time negotiations faced

nori-ire-titen no tuika to ienken no
landing points addition and right to fly

mondai de
beyond designated points problem concerning

Nihon no yookyuu o toosu koto o zyooken ni ...
request accept on condition

In the negotiations at this time, on condition that the Japanese requests for the addition of landing points and the right to fly beyond designated points are accepted, ...

(14) mata Shapiro-shi ni yorimasu to, kono yobikake
also according to this appeal

wa kongetu 15-niti syusaisya de aru nitibei-
this month promoter Japan-U.S.

anpozyooyaku-kaitei o motomeru
Security Treaty revision call for

hyakunin-iinkai ni yotte Tokyo de
100 people committee by in

kisyakaiken o site, happyoos-areru
press conference have publicize Passive

to yuu koto desu
is said

Also according to Mr. Shapiro, this appeal will be publicized on the 15th of this month, by arranging a press conference with its promoter, the Committee of 100 People Calling for Revision of the Japan-U.S. Security Treaty.

In (11) and (12) I-1 is used, while in (13) and (14) te-1 appears. In all these sentences I and te forms are interchangeable, with a slight change in meaning; namely, with I-1 merely sequential, but with te-1, sequential and the sense of close connection of S_1 to S_2. In (14), te is translated using 'by,' which indicates its subordination to the main sentence. In this sentence if I-1 form kaisaisi is used in place of kaisaisite, it loses the meaning of subordination or dependency.

Next, te-1 and te-2 are distinguished from each other by the value of the feature [Instrumental], which represents the sense that the action, event, or state conveyed by S_1 is instrumental to the

occurrence of what is expressed by S_2. The feature [+Instrumental] accounts for the meaning 'Reason' conveyed by te-2. Te-4, which represents the sense 'Means,' shares this feature. Sentence (15), from the same data, containing two te-forms, can also be accounted for by this feature [Instrumental].

(15) Itaria wa sengo sekai ni sakigake
Italy post war years ahead of other countries

keizai o ziyuukasite, ziyuu booeki o
economics liberalize free trade

mezasite iru ga, Nihon to no keizai-booeki-
aim economic trade

kankei de wa, koozooteki na hukinkoo ga
relation in structural imbalance

zoodaisite, yooroppa-syokoku ni samazama na
grow European countries in various

huan o makiokosite iru
unrest cause Progressive

Italy is advocating free trade as a liberalized trade and opened its markets ahead of other countries in post war years. However, he feared that trade friction with Japan, due to growing structural imbalance, is causing unrest in European countries.

The first te above is te-1 with [-Instrumental], while the second one with a double underline is te-2, and given the sense "reason" or "necessary condition" on the basis of

[+Instrumental]. Both of them are replaceable by I form, but it involves a slight change of meaning as well as a change of style. In the I version, the sequential meaning is predominant, without the sense of dependency or instrumentality for the following proposition. There is one I form on the first line, sakigake, which cannot be replaced by te form, or at least such replacement leads to low acceptability. It is mainly due to the repeated use of te. In (16) below, the same pair of sentences are conjoined by te, deriving an acceptable sentence.

(16) Itaria wa sengo sekai ni sakigakete, keizai o ziyuukasita

Italy opened its markets ahead of other countries in post war years.

Now we can see that as far as te-1, te-2 and I-1 are concerned, the proposed three features account for their meaning similarities and differences. Furthermore, we can tentatively conclude that those with the feature [+Sequential] are interchangeable.

Te-3, with the sense of contradiction, is not found in my data, due to the fact that te with this sense is highly colloquial. It is to be added that this type of te cannot be replaced by I form, as (17) below indicates.

(17) *sensei wa kotae o sitte-ori, siranai huri o
I,

site-ita
(the same meaning as (6)).

Te-4 requires a somewhat detailed explanation. First of all it must be noted that it has the feature [-Sequential]; in other words, S_1 in this case denotes a simultaneously occurring action, event, or state, rather than sequential occurrence. (7) conveys the meaning that Mr. Kato's action of using an OHP and his explanation occurred simultaneously. Since the main verb setumei-suru (explain) is a durative verb, S_1 also expresses a durative action. If the main verb is a verb of instantaneous action, S_1 conveys the meaning of an instantaneous action. Thus the sense of duration is given depending on the type of the main verb. Sentence (18) below is an example of instantaneous actions expressed in S_1 and S_2.

(18) Katoo-san wa te o agete, kuruma o tometa
hand raise car stopped

Mr. Kato stopped a car by raising his hand.

Compare (18) with (19), which conveys the durative sense.

(19) kodomo-tati wa hata o hutte, koosin-sita
children flags wave marched

The children marched waving flags.

In the latter case, S_1 actually conveys circumstantial meaning; namely, it is dependent on the main sentence, but denotes a simultaneously occurring action or simultaneously existing state, which is a background to the event expressed by S_2. The combination of [-Sequential] and [+Instrumental] stands for this circumstantial sense. Sentence (20) is an example from my data of NHK television news at 7 p.m., March 11, 1982.

(20) Suzuki-sooridaizin wa ... saikin no
Prime Minister recent

America-gikai de booei-mondai to
U.S. Congress at defense issue and

Niti-bei booeki-masatu no mondai o
trade friction between problem
Japan and U.S.

kanrenzukete, girons-arete-iru
link argue Passive Progressive

koto ni hukaikan o hyoomeisuru to tomo ni ...
that at displeasure express at the same time

Prime Minister Suzuki expressed his displeasure over the recent U.S. Congressional arguments linking the defense issue with the problem of trade friction between Japan and the United States ...

The feature [-Dependent] distinguishes all the occurrences of I form from those of te form. I-1 and I-2 differ from each other with respect to [+Sequential]. The former with [+Sequential] has

already been taken up in relation to te-1. Recall that I-1 shares this feature with te-1 and te-2, and all of them are mutually replaceable.

I-2 has the negative value for all the three features. It is not replaceable with any type of te form. Conjoined sentences by means of this type of I form can be freely reordered as in (21), the reordered version of (9).

(21) panerisuto ga seki ni tuki, sikaisya ga maiku no mae ni tati, subete yooi ga dekita

The panelists took their seats, and the presider stood in front of the microphone. Preparations were all finished.

All the sentences given at the beginning of Section 5 have the same subjects in both S_1 and S_2, except (9) and (10). In all these sentences different subjects are permitted, but with an additional vague sense of contrast. In (10) this sense is strengthened due to the use of the contrastive wa after each subject. This is why I-3, "contrast," is treated as a subclass of I-2. Example (22), from my data of NHK television news on March 10, 1982, contains examples of both I-2 and I-3.

(22) Nit:bei-booeki-syooiinkai hutukame no
Japan-U.S. trade subcommittee the second day

kyoo wa, mazu America-sei no tabako no mondai
today first American cigarettes problem

ni tuite hanasiai, nihongawa ga
concerning discuss-I the Japanese side

America tabako no hanbaiten o huyasu koto o
shops increase

maemuki ni kentoo-suru sisei o simesi,
positive investigate attitude show-I

America-gawa mo itioo kore o
tentatively this

ryoosyoosi-masita
accepted

On the second day of the meeting today, the Japan-U.S. trade subcommittee first discussed an expansion of U.S. cigarette sales. The Japanese delegation expressed their intention to make positive efforts in increasing the number of shops which sell U.S. cigarettes. The U.S. counterparts accepted the proposal.

In (22) the first I form is I-2, and the second is I-3, both of which share the minus values for the three features. The sense of contrast is reinforced in the second because of the subjects expressing two opposing parties. This is a case in which the sense of contrast is expressed without the use of contrastive wa. The following sentence is another example of I-3 with this type of wa following the

second subject. In short, the sense of contrast is conveyed by the use of structural devices such as unlike subjects for S_1 and S_2, contrastive wa, and so on.

(23) tennooheika kara Pertini daitooryoo ni
the Emperor from President to

Kutaniyaki no kazarizara ga okur-are,
Kutani porcelain ornamental dish present-Passive

daitooryoo kara wa Venetia garasusaiku no
glass

syokudai ga heika ni okur-are-masita
flambeau the Emperor to present Passive

The Emperor presented Mr. Pertini with an ornamental Kutani porcelain dish and in return President Pertini made the present of a Venetian glass flambau to the Emperor.

Now my conclusion is that I-2, which subsumes I-3, signals pure coordination, without any positive semantic features proposed here. This type of I form is used to conjoin sentences freely, to meet structural and discourse princples for avoiding repetitious use of the same sentence final forms. In fact, in (22) the three sentences conjoined by I-2 in the Japanese version correspond to the three simple sentences in the English version.

6. Conclusion

It is often stated that te and I connective forms are stylistic variants, but this is not always true, as has already been observed. Te-1, te-2, and I-1 are replaceable, but the replacement is accompanied by both stylistic and meaning differences. The popular belief that te and I forms are freely interchangeable holds only in these cases. The remaining three are not replaceable with anything else. The last one, I-2, is responsible for conjoining a number of sentences, simply to avoid repetition of the same sentence final forms. Thus the three semantic distinctive features adequately explain semantic similarities and differences of all these forms, as well as their distributional characteristics.

Next it would be necessary to see whether these three features are valid for dealing with other connective forms in Japanese. For conditional particles and inflectional endings, to, ba, tara, reba, the feature [Sequential] has already been shown to be indispensable in Inoue (1978). Furthermore, it is clear that the feature [Dependent] is shared by all these conditional forms. It is hoped for a future study to see whether these features play a crucial role in the description of a wide range of subordinating forms.

Lastly, it is important to check whether other SOV languages share the same characteristics of deriving long sentences by means of coordinating elements like I form in Japanese. According to Shibatani (personal communication) Korean has a similar characteristic. If this is the case with majority of other SOV languages, the discourse principles and semantic distinctive features proposed here will get a strong support.

NOTES

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[1]In fact, te, which is the infinitive form of the past tense marker ta, follows an infinitive form of a verb. In this paper a simple infinitive ending of a verb is called I form, and an infinitive ending followed by te is called te form.

[2]The method of counting by letters was adapted here, because this method is used by NHK to measure the speed of speaking. There are some other alternatives such as the count by bunsetu (phrases) or by constitutents.

[3]This novel was first published in a long series in the evening edition of the Asahi for more than a year, but later came out in a book form from the Asahi Publishing Co.

[4]This item also appeared in the morning edition of the Asahi in a series of about twenty essays, commenting on Japanese traits.

[5]It is a notable tendency in radio and television news reporting to overuse polite forms. See Inoue (1982b) for details.

[6]Kamio (1979), p. 221.

ON THE TWO FORMS OF NEGATIVE GERUND IN JAPANESE*

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1. Introduction.

It is well known that there are two forms for the negative gerund in modern standard Japanese, i.e., naide and nakute, both of which can be used as clause final connectors as exemplified in the following example.[1]

(1) Goroo wa yobootyuusya o si-naide/nakute
inoculation do-not

byooki ni nat-ta.
ill become-past

Goro did not get inoculated, and contracted the illness.

These two forms appear to be interchangeable in an example like (1). But they are by no means so interchangeable always, as the following would indicate.[2]

(2) Kesa wa asagohan o tabe-naide/*nakute
this:morning breakfast eat-not

basu ni not-ta.
bus ride-past

This morning I didn't eat breakfast and got on the bus.

The purpose of this paper is to characterize the nature of difference involved in the use of these two forms, taking into account particularly findings on this very issue in Kuno (1975b), Kitagawa (1976), and McGloin (1983) -- a somewhat detailed review of these works will be given in section 2. My claim will be essentially an extension of that presented in Kitagawa (1976), namely, that the difference in question is characterizable in terms of parts of speech identification: nakute is the gerund form of the 'adjectival auxiliary' na-(i), whereas naide is the gerund form of the 'verbal auxiliary' na-(i).[3] In this, my proposal may be understood to be a variant of the familiar 'two negation morphemes' argument in the traditional Japanese grammar (cf. Shiraishi 1956, McGloin 1972, Suzuki 1978, Yoshida 1971, etc.), although some crucial difference exists as will be discussed in section 4.

2. Review of McGloin (1983), Kuno (1975), and Kitagawa (1976).

In dealing with the naide and nakute distinction, it is important to point out at the outset that the distinction is clear-cut in some cases but not in some others. Two of the clear-cut cases can be identified readily. One is that the form naide can be attached to the verb stem only, while nakute may be attached to the adjective and copula stem as well as to the verb stem. The following examples attest to this fact.

(3) With the verb stem ne 'sleep':

Akanbo ga ne-nakute/naide hahaoya ga ne-ta.
baby sleep-not mother sleep-past

The baby did not go to sleep, but the mother did.

(4) With the adjective stem itaku 'is painful':

Atama ga itaku-nakute/*naide nodo ga ita-i.
head painful-not throat painful-pres

I didn't have a headache, but I have a pain in my throat.

(5) With the copula stem de:

Boku wa Amerikazin de-nakute/*naide Nihonzin
I American be-not Japanese

dear-u.
be-pres

I am not an American; I am a Japanese.

Another is that the environments which allow only a verb (not allowing, for example, adjectival ta-i 'want to') permit naide but not nakute; thus, in the environment specified by [___-te moraw], [___-te ok], [___-te hosi], etc., naide may occur but nakute does not, as the following examples demonstrate.[4]

(6) Tabako o suw-anaide/*anakute morat-ta.
cigarette smoke-not receive-past

I received the benefit of him not smoking for my sake.

(7) Haha ni nanas-anaide/*anakute
mother talk-not

o-i-ta.
do:in:preparation-past

I didn't talk about it to my mother (purposefully).

(8) Sake o nom-anaide/*anakute hosi-i
wine drink-not want-pres

I want you not to drink sake wine.

Where the naide and nakute distinction becomes an issue is a case in which the negation morpheme is attached to the verb stem, and not immediately followed by auxiliary items such as given in (6) -

(8) above -- here both naide and nakute may in many instances occur, as seen in (1) and (3). The occurrence of naide in this context, moreover, is virtually uninhibited. It is the corresponding occurrence of nakute that is sensitive to some sort of constraint, and it is this constraint on nakute that resists precise characterization. Thus Martin's otherwise exceedingly informative A Reference Grammar of Japanese (1975) merely identifies the problem by stating that "the two colloquial forms for the negative gerund are not completely interchangeable as clause-final connectors" (p. 478). And Kuno in his work on naide and nakute is given to comment: "a more systematic and exhaustive analysis of the -te forms of verbs and adjectives is urgently needed" (1975:461). The rest of the paper will thus be directed mainly to the explication of the naide and nakute distinction in this particular context.

It is a measure of the kind of difficulty involved with the problem that the existing analyses of the use of naide and nakute may easily be challenged with counterexamples of one type or another, while all capture some pertinent factors about them. Alfonso (1966) suggests, for instance, that nakute is the form used for "true sentence sequence," while naide occurs as a "negative verb

modifier" (p. 508). There are certainly a great many cases where this characterization seems to apply, including those given in (6) - (8). But it seems counter-intuitive that the distinction involved in the following should be captured in such 'configurational' terms; it seems, rather, that (9a) below is a case of "simple conjoining," to use Martin's classification,[5] whether naide or nakute is used, and that (9b) is Martin's "consequence" type, again whether naide or nakute is employed.

(9)(a) Siken wa Tanaka ga deki-naide/nakute
exam succeed-not

Yamada ga deki-ta.
succeed-past

As for the test, Tanaka did well, but Yamada didn't.

(b) Boku wa nani mo tabe-rare-naide/nakute zuibun
I anything eat-able-not much

yase-ta.
thin-past

I was not able to eat anything, and I lost much weight.

Still, it may be argued that Alfonso's characterization captures a correct TENDENCY involved in the naide and nakute distinction. And, on the basis of examples like the following, McGloin (1983) strikes just such a note, claiming

essentially that "the higher the degree S_1 (or V_1, the predicate of S_1) is felt to be subordinated to S_2 (or V_2), the more difficult it is to use nakute" (p. 32). In (10) [M's (35)], for example, V_1 and V_2 "stand relatively independently from each other," while in (13) [M's (38)] "the degree V_1 is felt to be subordinated to V_2 is very strong to the extent V_1 behaves like adverbial phrases for V_2" (p. 29).

(10) S_1 (i.e., the gerund clause) and S_2 (the main clause) are juxtaposed:

Tanaka ga ko-naide/nakute watasi mo tugoo ga
come-not I also convenience

warukat-ta.
bad-past

Mr. Tanaka did not come, and I was also tied up.

(11) S_1 is the cause for S_2:

Gohan o tabe-naide/nakute byooki ni nat-ta.
meal eat-not ill become-past

I did not eat, and I became sick.

(12) V_1 and V_2 are ordered sequentially:

Yosyuu o si-naide/*nakute kurasu e ki-ta.
preparation do-not class to come-past

(He) came to the class without having prepared for it.

(13) V_1 describes the manner in which V_2 is carried out:

Boosi o kabur-anaide/*anakute soto e de-ta.
hat wear-not out to go-past

(He) went outside without wearing a hat.

(14) V_1 is embedded in the complement S of V_2:

Tabe-naide/*nakute hosi-i.
eat-not want-pres

I want you not to eat.

(15) V_1 indicates negative requests:

Mi-naide/*nakute yo.
see-not

Don't look.

McGloin's illustration is informative. In fact, contrary to Tamori's (1976-77) claim that a gerundive clause in Japanese always indicates subordination, some instances of the nakute clause may indeed represent cases of coordination if we are to follow Tamori's own diagnostic test. Tamori argues that backward "deletion" is allowed in some subordinate structures but not in coordinate structures, and that, accordingly, the gerundive clause in (16a) is a subordinate clause, while the

infinitive clause in (16b) is not (being, rather, a coordinate structure; cf. p. 347).

(16)(a) $Ø_i$ razio o kii-te, John$_i$ ga benkyoo si-ta.
radio hear-ing study do-past

Listening to radio, John studied.

(b) *$Ø_i$ razio o kiki, John$_i$ ga benkyoo si-ta.

Note that, by the same principle, the following pair should show that the <u>nakute</u> clause represents coordination, while <u>naide</u> represents subordination.

(17)(a) $Ø_i$ yobootyuusya o si-<u>naide</u>, Goroo$_i$ ga byooki ni nat-ta. [cf.(1)]
inoculation do-not ill become-past

Having received no inoculation, Goro contracted the illness.

(b) ??$Ø_i$ yobootyuusya o si-<u>nakute</u>, Goroo$_i$ ga byooki ni nat-ta.

Assuming the correctness of Tamori's test frame, these examples further add credence to McGloin's claim.

But, unfortunately, her characterization is not altogether satisfactory either. For, in addition to its difficulty with examples such as given in (9), it will fail to account for a case like the following (which is similar, in fact, to examples discussed in McGloin 1972; 14-16) where nakute itself is ambiguous (along with naide) in terms, seemingly, of the degree of subordination -- in its (a) reading, (18) is similar to (11) above whether nakute or naide is used, S_1 representing the cause for S_2; but in its (b) reading, (18) is similar to (14), again whether nakute or naide is used, with V_1 embedded in the complement S of V_2.

(18) Ano syakkin o haraw-anakute/anaide yokat-ta yo.
that debt pay-not good-past

(a) It was good that I didn't pay back that debt.

(b) I didn't need to pay back that debt.

McGloin's "difference in the degree of subordination" argument, then, fails in a case like this, as well as with those given in (9) obviously, while capturing some important tendency in other respects.

In Kuno's (1975b) treatment, the naide and nakute distinction is identified in terms of their "semantic contrast": the naide form is said to often "describe an attendant circumstance ('with the

situation that')," whereas the nakute form "expresses a reason ('because')" (p. 451). This characterization captures, again, many cases of subtle semantic contrast, including the one like the following [cf. p. 453; K's (5-14a,b)].

(19)(a) Taroo wa sake o nom-anaide mizu bakari
drink-not water only

non-de i-ru.
drink-ing be-pres

Taro drinks only water without drinking sake.

(b) Taroo wa sake o nom-anakute mizu bakari non-de i-ru.

Taro drinks only water because he doesn't drink sake.

Also the same characterization would explain nicely the grammaticality discrepancy of the following pair [p. 454; K's (5-15a, b)].

(20)(a) Sosyoo ni nar-anaide kaiketu s-are-ta.
accusatior become-not solve do-passive-past

It was resolved without becoming a court case.

(b) *Sosyoo ni nar-anakute kaiketu s-are-ta.

??It was resolved because it didn't become a court case.

To quote Kuno, the unacceptability of (20b) is "due to the fact that it is difficult to interpret sosyoo ni nar anakute as representing the reason for something having been resolved" (p. 454).

The difficulty with this semantic approach is that, again, there are cases which do not fit in with the given characterization. Thus the following cases of naide would be left unaccounted for in Kuno's framework.

(21) Hooritu o mamor-anaide masumasu seikai ni
law keep-not more politics

tikara o nobasi-te i-ru.
power extend-ing be-pres

(He) does not adhere to the law, and yet he increasingly extends his power in the political world.

(22) Aisiaw-anaide ningen wa iki-ru koto-ga-deki
love:each-not people live-pres can

na-i.
not-pres

People cannot live without loving each other.

Sentence (21) is an instance of Martin's "concession" ('and yet, even so') type gerundive constructions, and (22) the "condition" ('if/when...-ing') type. Clearly, the use of naide here cannot be described in terms of "attendant circumstances." Kuno's characterization of nakute

as expressing "reason" may similarly be challenged by examples like the following.

(23) Nisibi mo amari sasikom-anakute sanzigoro
west:sun-also very enter-not 3 p.m.

tyotto hai-ru dake da.
little come-pres only is

The afternoon sun does not come in much, shining into the room only a little around 3 p.m.

(24) Aisiaw-anakute ningen wa iki-ru koto-ga-deki na-i. [cf. (22)]

People cannot live without loving each other.

In neither of these cases does the nakute clause function as a reason clause; rather, (23) is an instance of what Martin would call the "witness" ('and in proof thereof') and (24), as is the case with (22), the "condition" type gerund construction.

In Kitagawa (1976) it is argued that the notion 'self-controllability' is essential to understanding the difference between naide and nakute. That is, nakute is well-formed only in the context where the sequence of the two events represented by S_1 and S_2 is NOT perceived to be controllable by the (coreferential) subject of S_1 and S_2, whereas there is no such constraint for the use of the corresponding naide construction. This would explain the grammaticality discrepancy of the

following pair, since, in a normal interpretation, the difference between (25a) and (25b) is that in the former S_1 and S_2 is not likely to be perceived as under the control of kare 'he,' whereas in the latter the presence of adverbial wazato 'intentionally' would force such a reading.

(25)(a) Kare-wa siken-ni seikoo si-naide/nakute
he exam succeed do-not

zisatu si-ta.
suicide do-past

He did not do well in the test, and committed suicide.

(b) Kare wa wazato siken ni seikoo
he intentionally exam succeed

si-naide/*nakute zisatu si-ta.
do-not suicide do-past

He intentionally did not do well in the test, and committed suicide.

The same account would also explain why nakute tends to be well-formed if the gerundive clause has a subject not coreferential to that of the matrix clause, as in (26) below -- the reason for this is that the sequence of events represented by such two clauses cannot easily be considered to be controllable by the referent of either subject.

(26) Tanaka-ga ko-naide/nakute Yamada ga huhei o
come-not complain

it-ta.
say-past

Tanaka did not come, and Yamada complained.

The same account, furthermore, may be extended to explain the effect of the time schemata properties associated with verbs participating in the naide/nakute construction. For an event to be deemed controllable, the logical requirement is that it be perceived in terms of time reference. It follows, then, that for a given sentence construction to express a controlled sequence of events, the participating verbs cannot be what Kindaichi (1950) called zyootai doosi 'state verbs' which represent "zikan o tyooetu si-ta kannen" ('timeless concept'; p. 48). Viewed thus, and given the characterization of nakute mentioned above, it also follows naturally that nakute tends to be acceptable if a state verb (or an adjective, or copula expression, both of which are 'state' expressions in Kindaichi's framework) is involved, as may be attested by the following examples.

(27)(a) With oyog-e 'able to swim' (a state verb expression) as V_2:

Boku wa syuui o ki ni si-nakute oyog-e-ta.
I others mind do-not swim-able-past

I was able to swim without worrying about the others.

(b) With oyog 'swim' (a non-state verb) as V_2:

*Boku wa syuui o ki ni si-nakute oyoi-da.

I swam without worrying about the others.

Against these claims, however, McGloin (1983:26-27) provides counterexamples like the following.

(28) Eigo ga heta-na otoosan mo amari
English poor father too very

komar-anaide/*anakute ryokoo si-ta.
trouble-not travel do past

Your father, who is not good in English, traveled without being troubled too much.

(29) Uti no kodomo wa syuzin ni ni-naide/*nakute
our child husband to resemble-not

watasi ni ni-te simat-ta.
I to resemble end-past

Our child, not resembling my husband, ended up resembling me.

These examples are problematic to Kitagawa (1976) because, as McGloin (1983:28) points out, komar in (28) and ni (29) appear to be non-self-controllable

verbs as judged by tests such as devised by Kuno (1973:149-50).

The analyses of the naide and nakute distinction so far discussed thus all fail in one respect or another, although they all provide useful characterization in some ways.

3. Two Determining Factors

What I will attempt to show in this section is that the time schemata properties of the participating verbs and the notion of self-controllability (the two issues discussed in Kitagawa 1976) are still two factors crucial to a proper characterization of the naide and nakute distinction.[6] Critical to this line of analysis are, of course, McGloin's counterexamples, given above as (28) and (29), to Kitagawa (1976).

With (28), a significant factor is the time schemata implied by V_1. The verb komar 'be troubled' belongs to a group of verbs classified as 'terminus' verbs in Kitagawa (1972:116-27) along with such verbs as aki 'be bored,' koohun su 'be excited,' nayam 'be distressed'; these verbs constitute a natural class semantically sharing a property of mental or emotive state and, also, a predilection of denoting a sense of emotive consequence when they take a clausal complement

headed by no ni. In terms of the time schemata implied these verbs are not state verbs (they occur, for example, in the context [____-te i-ru] 'be__ -ing'), although they express, seemingly, a 'non-self-controllable' event. The fact pertinent to our purpose here, however, is the following: these verbs, occurring as V_1, generally do NOT accommodate nakute if the predicator occurring as V_2 is understood to convey a 'self-controllable' event (as may be so defined, for example, by the aforementioned test by Kuno). Thus in (28) nakute is odd with V_1 being a terminus verb and V_2 expressing a self-controllable event. Also to be noted is the following fact -- it seems that with a sentence like (28) the temporal connection assumed between the events represented by S_1 and S_2 must always be considered concurrent. This phenomenon of concurrency, as discussed by Tamori, is what characterizes the "manner" type gerundive construction (again utilizing, as Tamori does, Martin's terminology based on the 'positive' gerund forms). Not surprisingly, in a sentence like (28), the (negative) gerundive clause also functions as a "manner" adverbial. We may also note in passing that, as pointed out by Tamori (1976:77:327), V_1 of the "manner" gerundive must always be a "non-stative" verb. An important point I want to stress here is this: certain non-state verbs, which

may be classified in a specific way in terms of time schemata implied (e.g., 'terminus verbs'), may provide a definable context which regularly inhibits the occurrence of nakute, even though the events they themselves represent may normally be considered 'non-self-controllable.'

Turning now to (29), one may first notice that it fits McGloin's (1972) characterization that naide expresses a sense of the "denial of the speaker's expectation" and that nakute does not. This characterization, while it appears to provide no great insight for a case like (1), may nevertheless be the only way to explain the unacceptability of nakute in (29), allowing at the same time the well-formedness of nakute in an example like (30) below.

(30) Ano ko wa titioya ni ni-naide/nakute
that kid father to resemble-not

hahaoya ni ni-ta
mother to resemble-past

That child, not resembling his father, resembled his mother.

The fact is that, although there are cases like (29), the verb ni 'resemble' quite routinely provides a favorable context for the occurrence of nakute. Similar to this is the verb sir 'get to

know.' Note the parallelism between the pair (29) - (30) and the pair (31a) and (31b) below, particularly with respect to the way such a notion as 'denial of expectation' apparently inhibits the occurrence of nakute.

(31)(a) Sumimasen, sir-anaide/*anakute anna koto-o
sorry know-not such thing

si-te simat-ta.
do-ing end-past

I am sorry. Not knowing, I did such a thing (I should have known).

(b) Siken ga ar-u no o sir-anaide/anakute
test be-pres that know-not

gakkoo o yasun-da.
school skip-past

(I) skipped school not knowing that there was an exam.

Verbs like ni 'resemble' and sir 'get to know' denote an event normally understood as 'non-controllable,' although in terms of their time schemata they are neither state nor terminus verbs (unlike state verbs, for instance, they may occur in the context [___-te i-ru] 'be___-ing,' and unlike terminus verbs they convey no sense of emotive consequence with a clausal complement headed by no ni). These verbs obviously accommodate the occurrence of nakute; only, it is constrained by a

discoursal pragmatic factor such as 'denial of expectation' or some other like it yet to be defined clearly.

To recapitulate, the discussion so far has shown the following: (i) in order to describe the conditions under which nakute's occurrence may properly be specified, at least two general factors need to be taken into consideration, and they are the time schemata presupposed by the participating verbs and the notion of 'self-controllability' understood in an intuitive fashion however vague; (ii) additionally, in the case of certain non-state (and non-terminus) verbs expressing a non-self-controllable state/event, pragmatic factors such as 'denial of expectation' (which obviously is a notion that obtains within time schemata, as pointed out to me by Makino [p.d.]) may further affect negatively the well-formedness of nakute.

In the light of these, let us now turn to the cases involving what Kindaichi called keizoku doosi 'durative verbs' (which represent an event that can be measured in terms of its time duration with its beginning and end). These are verbs, needless to say, which typically express a self-controllable act. And Kuno comments: "it is very difficult to produce well-formed sentences of the pattern 'self-controllable V_1-nakute ... self-controllable

V_2' where V_1 and V_2 have coreferential underlying subjects" (1975b:453). Kuno himself concludes, however, that self-controllability cannot be the determining factor, citing an example given earlier as (19b), repeated here as (32).

(32) Taroo wa sake o nom-anakute mizu bakari non-de i-ru.

Taro drinks only water because he doesn't drink sake.

It is worth noting here, however, that its 'positive gerund' countempart, (33), is an anomalous sentence.

(33) *Taroo wa sake o non-de mizu bakari
wine drink-ing water only

non-de i-ru.
drink-ing be-pres

With self-controllable verbs occurring as V_1 and V_2, (33) should most typically convey the sense of temporal sequence, but the presence of bakari 'only' and -te i-ru 'be___-ing' in S_2 prevents that reading in a normally expected interpretation. Note that the following sentence, without those elements, is perfectly acceptable, conveying successfully the sense of temporal sequence.

(34) Taroo wa sake o non-de mizu o non-da.
wine drink-ing water drink-past

Taro drank sake, and then water.

This time around, however, its negative gerund counterpart, (35), is unacceptable if nakute is to be used.

(35) Taroo wa sake o nom-anaide/(*)anakute mizu o
wine drink-not water

non-da.
drink-past

Taro did not drink sake, but drank water.

All this demonstrates the fact that one favorable context for the occurrence of nakute is where the sense of temporal sequence (between the events represented by S_1 and S_2) is lacking. The final piece of complication, however, is this: (35) with nakute becomes acceptable if the sentence is conceived of as a response, for instance, to a question such as (36).

(36) Minna sake o non-de kara mizu o non-da
all drink-ing after water drink-past

daroo na?
I:presume right

I assume that everyone drank water after drinking sake, am I right?

The problem here may be solved in the following manner. Responding to (36), the speaker of (35) may take as given the fact that 'Taro drank water'; what is new in (35) is merely that, preceding the drinking of water, 'Taro in fact did not drink

sake.' Here, then, the speaker's assertion does not specifically pertain to Taro's controllability over the sequence of the two events (represented by S_1 and S_2). Under such a condition, it seems, nakute may also be acceptable.

Once again, therefore, the two general factors -- the time schemata property contributing to the shaping of temporal structure encompassing S_1 and S_2 -- are what determine the conditions required for the well-formedness of nakute involving durative verbs as well.

4. Two Types of Na-(i)'s.

The two determining factors just identified, however, are precisely what are customarily called upon to characterize the general semantic distinctions between verbs and adjectives. Thus Miura (1977:118-21) distinguishes these two parts of speech groups in terms of their distinct predilection in describing the temporal aspects, as well as the assumed controllability of a given state of affairs. A verb is used when the state/event is perceived in terms of its susceptability to change in time (taezu henka si-te i-ru arikata 'state of affairs that change constantly'; p. 119) or to control (watasitati no te-de hassei s-ase tari syoometu s-ase tari si-te i-ru 'we may cause it to

come into being and/or cease to be'; p. 120). An adjective is used, on the other hand, when the given state is perceived not to be constrained by such time reference, but rather as henka si-na-i mono 'that which does not change' (p. 118).

My suggestion (extending the characteristic of the verbs and adjectives here discussed to 'verbal auxiliary' and 'adjectival auxiliary') is this: the overriding distinction between naide and nakute is simply that naide is the gerund form of the verbal auxiliary na-(i); the contrasts, both semantic and pragmatic, that show up variously in the use of these two negative gerund forms all stem from this basic distinction in terms of the parts of speech.

This suggestion is not, of course, too controversial. It has been argued often enough in the traditional Japanese grammar that there need to be posited two types of na-i's, one to be identified as, for instance, keisiki keiyoosi 'formal adjective' and the other as zyodoosi 'auxiliary verb'. However, the difference is this: in the traditional approach, the adjectival na-i is typically considered to occur only with an adjective or copula stem, as in (38a) and (38b) below, and never with a verb stem, while the auxiliary verb na-i occurs invariably with a verb stem as in (39a) -- this means that, while naide is always the gerund

form of the auxiliary verb na-i, nakute may be the gerund form of either the adjective or auxiliary verb na-i's, as the (b) examples in (37) - (39) would indicate.

(37)(a) Kyoo wa samuku-na-i
today cold-not-pres

It's not cold today.

(b) Kyoo wa samuku-nakute/*naide tasukar-u
today cold-not helpful-pres

It's good that it's not cold today.

(38)(a) Ano kurasu wa sizuka-de-na-i.
that class quiet-be-not-pres

That class is not quiet.

(b) Ano kurasu-wa sizuka-de-nakute/*naide
that class quiet-be-not

komar-u.
bad-pres

That class is problematic, for it never is quiet,

(39)(a) Kare wa terebi o mi-na-i.
he TV see-not-pres

He doesn't watch TV.

(b) Kare wa terebi o mi-nakute/naide wa
he TV see-not

ne-rare-na-i.
sleep-able-not-pres

He cannot go to sleep if he doesn't watch TV.

The proposal offered in this paper, on the other hand, would hold onto the bi-uniqueness relation between the form and function and regard nakute invariably as the gerundive form of the adjectival auxiliary na-(i), and naide as that of the verbal auxiliary always. The basic semantic distinction between naide and nakute discussed so far, it seems to me, certainly points to the correctness of this characterization.

Viewed thus, it is not surprising at all that the contexts which allow naide but not nakute, such as (6) - (8) referred to earlier, are precisely those which allow verbs but not adjectives (cf. Kuno 1975, Sakata 1969, among others). But how does our proposal fare with cases seemingly more complicated -- e.g. such problematic cases as McGloin's counter-examples to Kitagawa (1976) discussed in conjunction with (28) - (31) above?

Considering first, then, the case of terminus verbs, let us note the phenomenon displayed by (40) and (41) by a pair of emotive predicates sharing (at

least nistorically) the same base -- a terminus verb kurusim-(u) 'agonize' in (a) and an adjective kurusi-(i) 'painful' in (b) -- in their (positive) gerund form.

(40)(a) Kurusin-de nodo o kakimusit-ta.
suffer-ing throat tear:at-past

(He) writhed in agony and tore at his throat [or, (He) tore at his throat in agony].

(b) Kurusiku-te nodo o kakimusit-ta.
painful:being throat tear:at-past

(He) was in pain and tore at his throat [or, (He) tore at his throat because he was in pain].

(41)(a) Kurusin-de sin-da.
suffer-ing die-past

(He) suffered and died [or, (He) died in agony].

(b) ?*Kurusiku-te sin-da.
painful:being die-past

(He) was in pain and died [or, (He) died because he was in pain].

Notice that the contrast between (a) and (b) here is that between the "manner" and the "consequence" (or 'cause-and-effect') types in Martin's classification, and parallels exactly Kuno's characterization of the use of naide and nakute.

That is, in (40a) and (41a) the gerundive clause may be said to represent the 'attending circumstance,' and in (40b) and (41b) the gerundive clause represent the 'reason'; hence, (41b) is odd, as was (20b) discussed earlier, to the extent that it can be considered odd for just "pain" to "cause one's death." These examples, involving a terminus verb, are significant because they too clearly equate the naide construction with the gerund form of the verbal, and the nakute construction with that of the adjectival. A fact like this then renders some further credence to the claim that nakute is adjectival in nature even when it is attached to a verb stem.

Using the same type of emotive predicates we may similarly test out that aspect of the naide and nakute contrast having to do with discoursal notions such as 'denial of expectation' discussed in connection with (29) - (31). Thus consider the following examples.

(42) Kanozyo wa otto no si o kanasin-de, sore o
she husband's death grieving it

omote-ni arawas-anakat-ta.
face-to show-not-past

She grieved her husband's death, and yet she did not show it (i.e., her grief) on her face.

(43) ?*Kanozyo wa otto no si ga kanasiku-te, sore o
sad:be-ing

omote-ni arawas-anakat-ta.

She was sad over her husband's death, and yet she did not show it (i.e., her grief) on her face.

Sentence (42), with the verb kanasim-(u) 'grieve' in its (positive) gerund form, allows as its one option the 'denial of expectation' sense (corresponding, roughly, to Martin's "concession" sense; see fn. 4) as given in the translation, with the pronominal sore interpreted to refer back to 'her grief over her husband's death.' This 'denial of expectation' sense, however, cannot be read into (43) with the adjective kanasi-(i) 'sad' in its (positive) gerund form; (43) is unacceptable in the sense of its translation given, while it is perfectly acceptable if understood to convey the sense 'she did not show it on her face, because she was sad over her husband's death' (where sore 'it' obviously does not refer to 'her grief over her husband's death'). Here again, therefore, the characteristic of naide in its corresponding inability to convey that sense in a similar context may be identified to be adjectival for having no time reference structure.

There has been a great deal of controversy among the traditional grammarians concerning the

evolution of the verbal auxiliary na-i and its gerund from naide (cf. Konoshime 1973, Yoshida 1971). What is relevant to us here, however, is a rather well recognized historical fact that the use of naide was quite widespread in the eastern part of Japan in pre-modern times, with many instances accounted in the literature around 16c on, corresponding to the use of ide or zusite in the west, and that it was only later that the form nakute began to appear (in certain limited ways) in the same environment as naide (cf. Sakata 1969:62, Konoshima 1973:168). The seeming interchangeability of naide and nakute in some of these contexts in modern standard Japanese is, then, the latest development of this same trend. As Konoshima observes, furthermore, the verbal auxiliary na-(i) has shown historically a marked tendency to assume the adjectival declension paradigm (pp. 166-71). The appearance of nakute in the contexts originally marked for the verbal auxiliary na-(i), therefore, may well be part of the "adjectivization" of the verbal auxiliary na-(i), which has been going on for some time now. And viewed thus, it also seems quite reasonable to assume that, in the context of modern Japanese, nakute may indeed be considered invariably as the gerund form of the adjectival auxiliary na-(i).

5. Concluding Words.

I have examined in this paper various ways to characterize the naide and nakute distinction. And my suggestion has been that the distinction can best be characterized in terms of the parts of speech: i.e., naide is the gerund form of the verbal auxiliary and nakute the gerund form of the adjectival auxiliary. This proposal is by no means an extraordinary one. But, if correct, it points to an interesting fact about the role of the parts of speech in communicative functions. For, we must then assume that such functional distinctions as 'attendant circumstance' and 'reason,' as well as perhaps such discoursal factors as 'denial of expectation,' that can be said to reflect the naide and nakute distinction may ultimately be traced back to the only real distinction involved, i.e., to the parts of speech distinction alone, since under the proposed analysis presented in this paper the semantic, as well as syntactic, properties of the two negation morphemes are exactly identical excepting those that are definable in terms of the parts of speech features.

NOTES

*An earlier version of this paper was presented at the 1983 Annual Meeting of Association for Asian Studies held in San Francisco, on March 27, 1983. I greatly appreciate helpful comments on the paper given to me at the meeting by Prof. Seiichi Makino.

[1]Negative morpheme na-(i) is adjectival in its declension, and nakute follows the expected pattern of gerund formation for adjectives. The status of the form naide, on the other hand, is ambiguous. Thus Yuzawa (1977:264-65), for instance, resorts to what he considers to be an unsatisfactory, but necessary, treatment by viewing it as an idiosyncratic, unitary particle; here, the basic status of nai is not a problem (Yuzawa recognizes it to be an instance of the zyodoosi 'auxiliary verb' na-i, which is then followed by what he considers to be the case particle de) -- the problem is that the juxtaposition of such nai and de is unknown otherwise in modern standard Japanese. In this paper, I will not be concerned with the inner composition of naide, and will simply treat both naide and nakute as two distinct gerund forms of na-(i). For a historical commentary on some relevant issues, see Sakata (1969), Matsumura (1957), among others.

[2]Under certain conditions, however, the occurrence of nakute in a sentence like (2) becomes well-formed also. The issue involved will be discussed in conjunction with (35) and (36) in section 3.

[3]The term 'adjectival auxiliary' is basically meant to correspond to the term keisiki keiyoosi 'formal adjective' used in the traditional Japanese grammar, referring to na-(i) as in (i) and (ii) below, whereas the term 'verbal auxiliary' is meant to correspond to the term zyodoosi 'auxiliary verb' used likewise in the traditional grammar, referring to na-(i) as in (iii); see, however, section 4 to follow, particularly the discussion relating to (37a) - (39a), which are identical to (i) - (iii).

(i) Kyoo wa samuku-na-i
today cold-not-pres

It's not cold today.

(ii) Ano kurasu wa sizuka-de-na-i.
that class quiet-be-not-pres

That class is not quiet.

(iii) Kare wa terebi o mi-na-i.
he TV see-not-pres

He does not see TV.

[4]These, incidentally, are the environments, as generally recognized, where naide uncharacteristically is not interchangeable with another negative connector zu ni, although there are some exceptions to this, e.g., [___-te ok] as in (7) (see Miyaji 1973 for a further discussion on this).

[5]Martin (1975:479) lists the following nine types in his analysis of the function of (positive) gerundive clauses; accompanying examples below include those taken from Martin and Tamori (1976-77):

(i) Temporal Sequence ('and then'):

Sono miti o hidari e it-te, tukiatat-te,
that road left to go-ing come:to:end-ing

migie ore-te, ...
right-to turn-ing

Taking this road left, following it to its very end, turning then to the right, ...

(ii) Consequence ('and so'):

Ame ga hut-te ik-e-nakat-ta.
rain fall-ing go-able-not-past

It rained, and so I couldn't go.

(iii) Manner or Appearance ('-ing, -like' for which the concurrent form V-i-nagara 'while...-ing' can often be substituted):

Taroo ga biiru o non de, bihuteki o tabe-ta.
beer drink-ing steak

Taro, drinking beer, ate steak.

(iv) Contrast ('and/but'):

Musuko wa ookiku-te, musume wa tiisa-i.
son big:be-ing daughter small-pres

The son is big, but the daughter is small.

(v) Concession ('and yet, even so'):

Yawarakaku-te, situko-i azi ga sita ni
tender:be-ing persistent taste tongue-on

nokor-u.
remain-pres

It (e.g., filet mignon at some five star restaurant) is tender, and yet its persistent taste lingers in one's mouth.

(vi) Condition ('if/when...-ing'):

Ai o kai-te, ningen-wa
love lacking people

iki-ru koto-ga-deki-na-i.
living-pres cannot.

People cannot live in the absence of love.

(vii) Instrument ('by...-ing'):

Hanako ga hasi o tukat-te, udon o tabe-ta.
use-ing eat-past

Hanako ate udon noodles using hasi.

(viii) Witness or Exemplification ('and in proof thereof'):

Kono heya wa zituni atuku-te, itumo sanzyuudo
this room truly hot:be-ing always 30°

izyoo ar-u.
above-pres

This room is truly hot; it always registers over 30°.

(ix) Simple Conjoining ('and'):

Hanako ga hon o yon de, Taroo ga terebi o
book read-ing TV

mi-ru.
watch-pres

Hanako reads books, and Taro watches TV.

[6]It is assumed throughout this paper that, as pointed out in Kitagawa (1976:61), two ostensibly related notions -- i.e., 'temporal sequence' and 'cause and effect' -- can still be distinguished in terms of their temporal structures. Thus the cause and effect relation does not require the participation of non-state verbs, as may be

exemplified by the following example, which may be interpreted as a perfectly good 'cause and effect' (or 'consequence,' to use Martin's terminology) statement, with two adjectives <u>iroziro</u> 'fair complexion' and <u>kirei</u> 'pretty' functioning as V_1 and V_2.

(i) Ano ko wa iroziro de, warito kirei da ne.
that girl fair be:ing kind:of pretty is right

That girl is fair in complexion, and so is kind of pretty.

SOME POLITENESS STRATEGIES IN JAPANESE

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The Japanese language is well known for its highly developed system of honorifics. Its highly sophisticated mechanisms, involving pronouns, verbal/adjectival morphologies and prefixes, have been widely studied and documented in such works as Harada (1976) and Miller (1967), among others. The system of honorifics, however, is actually only a small segment of the broader politeness phenomenon.

Robin Lakoff (1975), for example, gives three basic principles underlying the broader politeness functions of language use. They are:

1. Formality: keep aloof
2. Deference: give options
3. Camaraderie: show sympathy

Rule 1 is used to create distance between the speaker and the addressee. Some examples for Rule 1 include

formal vs. informal address terms (e.g., the use of titles vs. personal pronouns [anata, kimi, etc.] in Japanese), the use of technical terminologies, the use of the editorial we, and the use of passives and impersonal expressions.

Rule 2 is a way of leaving up to the addressee the option of how to behave and what to think, thereby making one's statement, request, etc. less imposing on the addressee. The use of tag-questions, hedges, and conversational implicatures are some examples for Rule 2.

Uyeno (1971) and R. Lakoff (1972) pointed out that the use of the Japanese particle ne, as in (1) and (2), is another Rule 2 device.

(1) Kyoo wa samui desu ne.
yesterday TOP cold COP

It's cold today, don't you think?

(2) Biiru wa katte aru ne.
beer TOP buy have

You already bought beer, didn't you?

In (1), the speaker believes it's cold but leaves the option of judgment to the addressee. Ellipsis is another very salient Rule 2 device in Japanese.[1] Observe the following sentences.

(3) Kore ga iti mai hosii n desu ga, ...
this NOM one want cop but

I would like a copy of this, but ...

(4) Syokuzi no o-sitaku ga dekimasita
dinner GEN preparation NOM done

kedo, ...
but

The dinner is ready, but ...

Native speakers of Japanese would immediately recognize that these are used to make requests. In sentence (3), the speaker is actually requesting a copy and (4) is used to request that the guests come and eat supper. Sentence+ga conversationally implies a request, and thus makes a request more indirect, more polite.

Rule 3 is a way of creating rapport between the speaker and the addressee by "making the addressee feel that the speaker likes him and wants to be friendly with him, is interested in him, etc."[2] The use of nicknames and particles such as like, y'know and I mean are some examples of this in English.

Brown & Levinson (1978) reduce the politeness phenomenon to one basic principle--i.e., showing consideration for people's feelings or the notion of saving "face". Two ingredients of people's feelings

are relevant here: desire not to be imposed upon (negative face) and desires to be liked, admired, related to positively (positive face). The former relates to "negative politeness" while the latter relates to "positive politeness." Positive politeness tries to redress a potential threat to one's positive face by treating the addressee as a member of an in-group. This is very much like Lakoff's Rule 3. Negative politeness is a way of avoiding a threat to one's negative face by assuring the addressee that his desire not to be imposed upon will be honored. Such linguistic devices as hedges, impersonization, apologies, etc. characterize negative politeness strategies. Negative politeness, then, seems to correspond to Lakoff's Rule 1 and Rule 2.[3]

In this broader characterization of the politeness phenomenon, it is clear the problem goes much deeper than the mere study of the honorific system. In the following, I would like especially to point out that the Japanese language has a very salient Rule 3 or positive politeness strategy, which has heretofore not been given much attention. In particular, this involves the use of <u>no desu</u>, as in (5).

(5) Watasi wa koo yuu keeken ga
I TOP this kind experience NOM

aru n desu yo.
have

Itaria e iku desyoo. Itaria no
Italy to go Italy GEN

doko e ittemo ironna hoogen o
where to go different dialect ACC

syabette ru n desu yo. De, sore o
speak PRESENT and that ACC

watasi wa yappari Itariago no issyu da to
I TOP again Italian GEN kind cop

yuu huu ni omotte ita n desu ne. Aburuttuo
think was Abruzzi

no hoogen da toka, Tosukana no hoogen
GEN dialect cop such Tuscany GEN dialect

da toka, iroiro arimasu. Minna Itariago
cop such various exist all Italian

ni tigai nai to omotte imasita. Ga, karera
different not think was but they

wa isiki ga tigau n desu ne. Kore wa
TOP feel NOM different This TOP

Aburuttuo no hoogen de aru, arui wa kore wa
Abruzzi GEN dialect or this TOP

Tosukana no kotoba de aru. Sikasi sono
Tuscany GEN language but

hoka ni watasi wa Itariago ga syaberemasu
other I TOP Italian NOM can speak

to, koo yuu n desu.
this say

(Nihongo no Shoorai: 293)

I have had this kind of experience. Well, I went to Italy. Wherever I went in Italy, they were speaking different dialects. And, I thought that each dialect was just a variation of standard Italian. There are many dialects such as the Abruzzi dialect, the Tuscany dialect, etc. I thought that they were all considered Italian. However, they [the Italians] feel differently. They say, "this is a language of Abruzzi" or "this is a language of Tuscany." But, in addition, I can speak Italian.

As I have argued in McGloin (1980), the basic function of no desu is

> to present information which is known only to either the speaker or the hearer as if it were shared information between the speaker and the hearer.

In (5), for example, the information is known only to the speaker. The speaker could just as well have given this information in plain form without using no desu. Why, then, does he use no desu here? I think the reason is a pragmatic one. What's happening in a case like (5) is that the speaker, by using no desu--i.e., by presenting the information as if it were shared also by the hearer, tries to create a sense of rapport with the hearer, thereby involving the hearer in the conversation or his point of view.

What Kamio (1979) calls "the speaker's territory of information" is relevant here. Kamio (1979) argues that a conceptual category, "the speaker's territory of information," is needed in order to adequately explain the function of certain sentence-final endings as is exemplified in sentences (6)-(8).

(6) Taroo wa byooki da-Ø. (=Kamio's (2))
TOP sick cop

Taroo is sick.

(7) Taroo wa byooki da-yo.

(8) Taroo wa byooki na n da.

Kamio claims that these sentence-final forms (i.e., Ø-element, yo and no da) can be used only when the given proposition is held exclusively by the speaker--i.e., when the information belongs to the speaker's territory of information. When the information does not belong to the speaker's territory of information, sentences such as (6)-(8) are inappropriate. Rather, a different set of endings will be used, as in (9)-(11).

(9) Taroo wa byooki datte.
hear

I hear Taroo is sick.

(10) Taroo wa byooki rasii.
look

It looks like Taroo is sick.

(11) Taroo wa byooki da soo da.
hear cop

I hear Taroo is sick.

Various factors affect whether certain information falls within the speaker's territory or not. The speaker's direct experience, perception, psychological processes, hopes and convictions belong to the speaker's territory of information.

Moreover, whether certain information can be assumed to belong to the speaker's territory or not depends on the role the speaker plays in relation to the addressee. So, Taro's father, when talking to Taro's friend, can utter sentences such as (6)-(8) even if he might simply have heard the information from someone such as a doctor who examined Taro. This is apparently because the information about Taro is felt to belong to Taro's father's territory simply because Taro is his son.

The function of no desu, as exemplified in (5), then, can be reformulated as follows:

> it presents information which is held exclusively in the speaker's territory of information as if it also belongs to the hearer's territory of information at a particular moment of speech.

This makes the territorial boundary between the speaker and the hearer less distinct and creates a sense of oneness between the hearer and the speaker.

This way of creating a rapport is not limited to no desu, however. Observe the following sentences.

(12)(a) Kyoo wa ii otenki desu ne(e).
Today TOP good weather cop

It's a nice day, isn't it.

(b) Soo desu ne(e).

Yes, it really is.

(13)(a) Otaku no ozyoosan wa ima daigaku
you GEN daughter TOP now college

desita ne.
cop

Your daughter is in college now, isn't she?

(b) Ee, soo desu.

Yes, she is.

(14)(a) Uti no kodomo wa ima taisoo o
my child TOP now gymnastics ACC

naratte iru n desu yo ne.
learn

My child is taking gymnastics lessons now.

(b) (Hee,) soo desu ka.

Oh, is it so?

In (12) and (13), the propositional information is known to the hearer. Ne is used like a tag-question in English to seek confirmation or to weaken assertion by giving the hearer an option of agreeing or disagreeing. In (14), however, the information is rather personal and held exclusively by the

speaker. The hearer does not know this information, as can be shown by the respective responses to these utterances. While confirmation such as ee, soo desu is an appropriate response to (12) and (13), (14b) clearly shows that the hearer did not know this information. The effect of the (14a) type of ne, then, is again to create rapport between the speaker and the hearer at a particular moment of a speech act by assuming knowledge on the part of the hearer.

Observe another sentence.

(15) Boku uti no sigoto o tittomo sinai desyoo.
I house GEN work ACC at all don't

Sorede, kanai ga....
o wife NOM

I don't do any housework. So, my wife....

Sentence (15) can be uttered to someone who already knows that the speaker does not do housework or to someone who does not know this piece of information. In the former case, desyoo is used to seek a positive answer from the addressee. The latter type of desyoo, however, is used to establish a rapport between the speaker and the hearer by presenting the information as if the hearer is already familiar with the information.

On the one hand, as Kamio observes for sentences (6)-(11), Japanese makes a clear

distinction between information that belongs to the speaker and information that does not. As has been observed for sentence-final forms such as no da, ne and desyoo, however, the Japanese language also has a very salient politeness strategy whereby the speaker seeks to establish rapport with the hearer by assuming knowledge on the part of the hearer or by momentarily nullifying the territorial distinction between the hearer and the speaker. When the hearer is a cooperative listener, this serves a Rule 3 politeness strategy. When the hearer is an uncooperative listener, however, this becomes rather imposing, presumptuous, or too assuming, as, for example, when student radicals use no desu in their address to the public.

Now, when both the speaker and the hearer share a certain amount of information, no desu ka is a more sympathetic response.

(16)(a) Nanika iya na koto ga atta n
anything bad thing NOM existed

desu ka?
cop Q

Did anything happen?

(b) Nanika iya na koto ga arimasita ka?

Looking at someone who is crying, (16b) would be a very unsympathetic response. N desu ka, however, does not always serve a sympathetic response. Consider the following.

(17)(a) Samui desu ka?
cold cop Q

Are you cold?

(b) Samui n desu ka?

Is it that you are cold?

To someone who is shivering, (17b) should be an appropriate, more sympathetic response. If, however, the host(ess) utters (17b) to a guest, it sounds very impolite. In this situation (17a) would be an appropriate utterance. Notice, however, that (18b) sounds fine when said by a host(ess) to a guest.

(18)(a) Atama ga itai desu ka?
head NOM hurt cop Q

Do you have a headache?

(b) Atama ga itai n desu ka?

Is it that you have a headache?

(18b) conveys a speaker's concern toward the state of the hearer, while (18a) does not. Why is the use of n desu inappropriate in (17b) in the host(ess)-guest situation?

There is one fundamental difference between (17) and (18). That is, in (17), the speaker (i.e., host(ess)) is responsible for the addressee (i.e., guest)'s feeling cold or not since the host(ess) can turn up the heater or close the window, etc. In (18), on the other hand, whether the addressee has a headache or not is not in the domain of the speaker's responsibility.

It has been noted elsewhere that in some decision-making situations where both the speaker and the addressee are involved, the use of no desu has the connotation of leaving oneself out of the decision-making process. So, observe the following sentences.

(19)(a) Kyoo no kaigi wa doko de
Today GEN meeting TOP where at

yarimasu ka?
do Q

Where shall we have today's meeting?

(b) Kyoo no kaigi wa doko de yaru n desu ka?

Tell me where we are going to have a meeting.

Suppose the place of meeting has not been decided and both the speaker and the hearer are involved in this decision-making process. (19a) conveys that the speaker is willing to get involved in the

matter, while (19b) conveys that the speaker is somewhat reluctant to get involved.

A similar factor seems to be operating in (17). That is, by uttering (17b), the speaker implies that he/she is not taking the matter into his/her own hands but rather the connotation is that the matter has been unilaterally forced upon him/her by the guest. It, moreover, conveys that the speaker is rather unwilling to accept that the hearer is cold. Hence, the impoliteness of (17b).

No desu is often used as a Rule 2 politeness device. Observe the following sentences.

(20) Daizyoobu desu ka? Sitizi kara da to,
all right cop Q seven from cop if

kuzi tikaku ni natte
nine close become

(a) simaimasu } kedo.
(b) simau n desu }

Is it all right? If you start at seven o'clock, it will be close to nine when you finish.

Sentence (20b), with no desu, definitely gives the feeling that the speaker feels sorry or is apologizing that it takes such a long time. If one is talking to a customer, (20b) would be an appropriate utterance. Similarly,

(21)(a) Okasi ga todana ni haitte masu kedo,
sweets NOM cupboard is in but

are o okyakusama ni odasi site ne.
that ACC guest serve do

There are some sweets in the cupboard, so would you please serve them to the guests?

(b) Okasi ga todana ni haitte iru n desu
sweets NOM cupboard is in

kedo, are o okyakusama ni dasite
but that ACC guest serve

itadake nai desyoo ka?
receive not Q

There are some sweets in the cupboard. Would you mind serving them to the guests?

Information conveyed by both (21a) and (21b) is the same. Sentence (21b), however, is more polite. While the wife of an executive might utter (21a) to the wife of her husband's subordinate, one would probably resort to (21b) if talking to a superior or one's not too familiar acquaintance. By using no desu, the speaker is implying "since you might already know this piece of information, it might be unnecessary to tell you this, but...." By using no desu in (20) and (21) the speaker, in a way, is disclaiming the assumption that the purpose of the assertion is to convey new information to the addressee, and thus hedges his assertion and makes it less direct.

In conclusion, I hope to have shown that the study of the politeness phenomenon in Japanese can go much deeper than has hitherto been the case. In particular, the study of no desu shows that the Japanese language has a very productive politeness strategy of assuming knowledge or familiarity on the part of the hearer at a particular moment of speech. This, however, interacts with the politeness phenomenon in a very subtle way. That is, depending on the sentence types or context, it could work as a rapport-seeking device or as a hedge, or sometimes it could be quite rude.[4] Thus, the task of learning the proper usage of no desu, and consequently the art of claiming common ground with the hearer, is made doubly difficult for students of Japanese.[5]

NOTES

[1]For further discussion of different types of ellipsis in Japanese, see Monane, Tazuko A., "Discourse Analysis in Pedagogical Perspective: The Teaching of Syntactic and Informational Ellipsis", a paper presented at the Middlebury symposium on Japanese discourse analysis, July, 1981.

[2]Robin Lakoff, Language and Woman's Place, 1975, p. 67.

[3]Furthermore, Brown & Levinson give a very extensive discussion of kinds of politeness strategies used in various languages.

[4]For example, no desu kara is sometimes very impolite. Consider the following:

(i) Tosyositu no hon wa moti dasite wa
reading room GEN book TOP take out

ikenai koto ni natte (a)imasu
prohibited (b)iru n desu

kara, tosyositu igai dewa tukawanai
because reading room other than use-not

yoo ni site kudasai.
do please

Because taking books out of the reading room is prohibited, please do not use (books) outside of the reading room.

If one is simply giving information that there exists a rule that people should not take the books out of the reading room, (ia) would be appropriate. The use of no desu implies that the speaker feels that the hearer (or the reader) should be familiar with this rule and has not observed it. Thus, it carries a connotation of reproach, and hence is impolite if said to someone who is unfamiliar with this information.

[5]Students of Japanese who were introduced to Japanese initially in Japan especially tend to overuse no desu. This is apparently because they feel that the use of no desu sounds more polite. This, then, supports the above observation that no desu is widely used as a politeness strategy. The problem for them, however, is overgeneralization. They should be taught to recognize the relationship between no desu and various sentence types.

PRAGMATICS OF CAUSATION IN JAPANESE

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This study is concerned with Japanese causatives, in particular, with the role of contextual information in interpreting the degree and the manner of causation implied in a causative sentence. There are two interrelated points I wish to make about causation in Japanese. First, among syntax, semantics, and pragmatics, it is pragmatics that plays the most prominent role in the interpretation of Japanese causatives. Second, particles (case marking and postposition) in certain causative constructions have pragmatic as well as syntactic/semantic functions.

1. Causatives in Japanese

The most typical causative construction in Japanese, the one I will deal with in this paper, involves the bound morpheme -(s)ase. When -(s)ase

attaches to an intransitive verb root, the resulting complex verb takes two NP arguments, the first one typically marked by the nominative case marker ga and the second by either o or ni.[1] The option of attaching o or ni to the second argument has led to calling these constructions o-causative and ni-causative (Kuno 1973).

(1)(a) Taroo ga Hanako o suwar-ase-ta.
NOM ACC sit-cause-PAST

Taro caused Hanako to sit down.

(b) Taroo ga Hanako ni suwar-ase-ta.

When -(s)ase attaches to a transitive root, there is no o/ni alternation; the NP arguments of such a V-(s)ase verb are assigned the case array ga ni o.

(2) Taroo ga Hanako ni hon o yom-ase-ta.
NOM DAT book ACC read-cause-PAST

Taro caused Hanako to read a book.

The bound morpheme -(s)ase can be used to express various types of causation which in English are expressed by discrete lexical items, e.g. make, force, have, let. Some linguists claim that this asymmetry, in which one morpheme, -(s)ase, in Japanese covers a number of lexical items in English, is due to polysemy. This "polysemy" hypothesis commonly associates the meaning 'force'/'make'/'coerce' to o-causatives and

'let'/'less coercion' to ni-causatives (e.g. Kuroda 1965, Kuno 1973, Shibatani 1973). This proposed semantic distinction is reflected in the deep structure where the two types of causatives are assigned different configurations. When the "complement" verb (the V in V-(s)ase) is intransitive, the o- and ni-causative deep structures end up with the different case arrays ga o and ga ni at the surface structure. If the complement verb is transitive, the two deep structures merge into the same surface structure, which has the case array ga ni o (Kuroda 1965, Kuno 1973).

The main thesis of this paper is that the types and degree of causation associated with causative sentences are inferred primarily from contextual information. A basic assumption behind this thesis is that -(s)ase is not polysemous; rather, it is simply associated with the notion of 'cause'. I will not attempt to argue against the "make-let" polysemy hypothesis in this paper since a number of counterexamples have already appeared in the literature (e.g. Kitagawa 1974, Tonoike 1978). I will simply assume that, for example, the o- and ni-causatives in (1) have the meaning 'Taro caused Hanako to sit down'. In the rest of the paper, I will demonstrate that the various interpretations

associated with these causatives are most naturally derived by pragmatic means.

2. The Pragmatic Hypothesis

When the hearer hears an o-causative such as (3),

(3) Taroo ga kodomo o kaer-ase-ta.
NOM child ACC return-cause-PAST

Taro caused the child to return home.

he/she understands that the child went home, and that Taro caused this event to occur. This much is sentence semantics. The hearer must now appeal to contextual information to infer the type of causation involved in (3).

For o-causatives, I propose that the single most important inference made by the hearer is that the causee was "totally affected" (Hopper and Thompson 1980) by the causer.[2] That is, if the child went home, and Taro caused this event, the hearer infers that the child must have been totally affected by Taro to carry out the act. This is the most immediate inference made by the hearer. Once this inference is made, the hearer uses relevant contextual information to see how this totality of affectedness was obtained, giving rise to interpretations such as 'make' and 'coerce'.[3]

The concept of total affectedness is proposed by Hopper and Thompson (1980) as one of many parameters of transitivity. Since the other parameters are important to the interpretation of causatives as well, I will begin by discussing their proposal.

2.1. Hopper and Thompson on Transitivity

Traditionally, transitivity is "understood as a global property of an entire clause, such that an activity is 'carried-over' or 'transferred' from an agent to a patient" (Hopper and Thompson 1980: 251). Hopper and Thompson suggest ten parameters that contribute to the transitivity, high or low, of a clause. These parameters are listed below.

(4) Parameters of Transitivity	High	Low
A. Participants	2 or more participants, A and O[4]	1 participant
B. Kinesis	action	non-action
C. Aspect	telic	atelic
D. Punctuality	punctual	non-punctual
E. Volitionality	volitional	non-volitional
F. Affirmation	affirmative	negative
G. Mode	realis	irrealis

H.	Agency	A high in potency	A low in potency
I.	Affectedness of O	O totally affected	O not affected
J.	Individuation of O	O highly individuated	O non-individuated

Some of these parameters are redundant, e.g. "action" under Kinesis entails "volitional" under Volitionality, which in turn entails "A high in potency" under Agency, and so on. This problem with their analysis, however, is not crucial to the analysis of Japanese causatives, so I will utilize the parameters as given above.

According to Hopper and Thompson, a clause that has one or more elements falling under the High column will be higher in transitivity than will a clause with elements under the low column. They further note that the "defining properties of transitivity are discourse-oriented" (1980): 251). I take this to mean that the phenomenon of transitivity is to be viewed independent of formal sentence grammar.

2.2. O-Causative

A causative sentence has high transitivity because of its inherent meaning. If someone causes

someone else to carry out an act, then an "activity" (causation) is effectively carried over from the causer to the causee. Now, in an o-causative, what is important to note is that this standard, high transitivity is unabated by the occurrence of o because ga o is precisely the case array we expect in a sentence with high transitivity. The occurrence of o is thus redundant with respect to transitivity. Its occurrence does not ennance the inherently high transitivity of a causative construction, but rather, it simply redundantly marks this high transitivity.[5]

The occurrence of o is redundant in another respect. Jacobsen (1981) observes that Japanese intransitive-transitive pairs are commonly distinguished morphologically, e.g. aku 'open (intransitive)', akeru 'open (transitive)'. Case marking also distinguishes transitive from intransitive verbs, i.e. ga for intransitive, ga o for transitive. Jacobsen notes that when the verb is marked morphologically for being transitive, the concomitant case array, ga o, does not add any new information. Here, o redundantly represents information borne by the verb.

An intransitive V and its causative counterpart, V-(s)ase, make up an intransitive-transitive pair with respect to the

number of NP arguments. The morphology thus indicates that V-(s)ase takes two arguments. If o attaches to the second NP, it is redundant because this is precisely what we expect. Ga o is the canonical case array for transitive construction. Here, again, o represents information borne by the causative verb. In this case, the information that o redundantly represents is in the morphology, and not the meaning, of the causative verb.

The redundant nature of o in o-causatives leads us to conclude that the pragmatic hypothesis for o-causatives introduced at the beginning of this section is a hypothesis about causation in general. The hearer, upon hearing an o-causative, immediately infers that the referent of NP o was totally affected at the time of causation. This inference is motivated primarily by the occurrence of V-(s)ase. The o that occurs in the sentence only confirms this inference since it bears information predictable from the causative verb.[6]

In the remainder of this section, we will look in detail at the pragmatic factors attending to the interpretation of o-causatives. In the next section, we will see how ni in ni-causatives functions pragmatically to trigger inferences that lead to interpretations different from those of o-causatives.

2.3. O-Causative and Parameters of Transitivity

The following is a typical o-causative sentence.

(5) Sensee ga gakuseetati o suwar-ase-ta.
teacher NOM students ACC Sit-cause-PAST

The teacher caused the students to sit down.

The sentence semantics tells us that the students sat down, and the teacher caused this event to occur. In the absence of information to the contrary, we naturally assume that the students were totally affected by the teacher to sit down. Our task as the hearer is to see how this total affectedness was obtained.

In terms of the participants in the event, there is nothing extraordinary. A teacher, being a figure of authority, can naturally be conceived as having total control over his students, and the students in turn inherently and totally affected. This is not a part of the meaning of the sentence; it is a part of our knowledge about the world with respect to teacher-student relationships. Now, in the absence of information to the contrary, the hearer may very well assume that the totality of affectedness implied in (5) was effected simply by the total affectedness inherent in the role of students vis-a-vis the teacher. On this interpretation, the teacher did not engage in a

forceful act; he may very well have asked the students in a friendly manner to sit down. This is certainly one possible interpretation of (5).

Now note what happens if we reverse the roles of causation.

(6) Gakuseetati ga sensee o suwar-ase-ta.
students NOW teacher ACC sit-cause-PAST

The students caused the teacher to sit down.

(6) implies that the patient, this time the teacher, was totally affected. Unlike (5), the most natural interpretation here is that the students engaged in some forceful act to obtain the totality of affectedness.[7] The reason for this is transparent. There is nothing inherent in a student-teacher relationship that would lead to the teacher being totally affected by the students; we in fact expect just the opposite. In order to totally affect the teacher, the students had to usurp the role of authority, a direct and possibly physical act.

(5) and (6) exemplify the discourse-oriented nature of causation, in particular, our knowledge about the world that attends to the interpretation of causative sentences. If totality of affectedness is inherent in the roles of the participants, this preexisting condition can be understood to be the

totality of affectedness implied in the causative sentence, thus leading to the interpretation that no forceful act was involved. If there is nothing inherent in the roles of the participants that would obtain the totality of affectedness, we would naturally conclude that the condition came about because of some forceful act on the part of the agent.

The following example illustrates some other factors attending to the interpretation of o-causatives. This example is a fragment of an actual conversation I had with a high school teacher. The utterance is his response to my question, "How many students did you teach last year?"

(7) (Boku wa) kyonen yonzyuunin no seeto o
I TOP last:year 40 students ACC

sotugyoo s-ase-ta kedo . . .
graduate do-cause-PAST but

(I) graduated 40 students last year, but . . .

The underlined portion constitutes an o-causative. It is possible to interpret this sentence as: I made/forced/coerced 40 students (to) graduate last year. However, this is not the intended interpretation. The speaker meant to simply convey that forty of his students graduated last year, in turn implying that he taught about forty students.

The use of o-causative implies that the patient was totally affected by the agent. The hearer can infer that this total affectedness was obtained because teachers usually have total authority over whether a student graduates. Accordingly, the sentence need not imply that a forceful act was involved. This sentence however implies hardly any causation, much less so than in (5), which represents the teacher's act of having sat his students down. There are three reasons for this. First, the act of authorizing graduation, which is a prerogative of the teacher, is much more abstract than the act of getting students to sit down. Hopper and Thompson's Kinesis (action/non-action) is relevant here. Because of the abstract nature of the act represented by sotugyoo-sase 'cause to graduate', it involves less action than suwar-ase 'cause to sit down', and hence is lower in transitivity. The second reason, which is also related to Kinesis, is that, under normal circumstances, we expect students to graduate. While the final authority rests with the teacher, the teacher's authorizing graduation involves less action (because it is expected) than if he/she were to not authorize it. The third reason has to do with the patient of the causative. Recall that (7) is a response to a question about the number of students that the teacher taught the previous year.

Consequently, in the patient NP, yonzyuunin no seeto '40 students', it is the number of students, not the students per se, that is the salient information. Even though the information is couched in a causative sentence, we cannot conceive of an action by the agent being carried over or transferred to a number.[8] The patient is thus not "individuated" so that no effective transfer of action takes place.

If we replace yonzyuunin no seeto '40 students' with an NP that has a definite referent, the transitivity of the sentence rises perceptibly, encouraging the interpretation that some manipulative act took place.

(8) (Boku wa) kyonen Taroo o sotugyoo s-ase-ta.
I TOP last:year ACC graduate do-cause-PAST

(I) caused Taro to graduate last year.

Unlike (7), (8) has an NP whose referent is highly individuated, and thus can act as the recipient of the action by the agent.

The sentence in (7) implies hardly any causation in part because of our knowledge that students are inherently and totally affected by teachers. If the agent NP does not hold this authority, we would infer that a manipulative act took place to achieve the totality of affectedness

implied by the sentence. The following example illustrates this.

(9) Hahaoya ga kodomo o sotugyoo s-ase-ta.
mother NOM child ACC graduate do-cause-PAST

The mother caused (her) child to graduate.

A mother does not normally hold complete authority over whether her child graduates. We thus infer from (9) that the mother engaged in some forceful act to bring about the event. This example shows that a non-coercive interpretation is possible only if we know that the referent of the patient NP is totally affected by the referent of the agent NP with repsect to the action carried out. We can conceive that a mother has total affectedness over her child, but not with respect to graduation.

For some o-causatives, it is hard to imagine that a direct, manipulative act did not take place.

(10) Taroo ga Hanako o hasir-ase-ta.
NOM ACC run-cause-PAST

Taro caused Hanako to run.

We readily infer from (10) that Taro directly manipulated Hanako to bring about the caused event. The following example, however, shows that this interpretation is contextually induced. The sentence is taken from Kitagawa (1974).

(11) Moo uma o turete kaeru zikan datta ga,
already horse ACC take back time was but

amari yukaisoo ni kakoi no naka o hasitte iru
so joyously arena GEN inside ACC running

no de Taroo wa sono mama moo sibaraku
TOP more while

uma o hasir-ase-ta.
horse ACC tun-cause-PAST

The time had come for Taro to take the horse back, but, because the horse was running so joyously in the arena, Taro let it run a little while more.

Taro, being a person, has total control over when his horse must return. However, it is clear from the context that the speaker of (11) did not intend to convey that a forceful, manipulative act took place. Rather, the agent, Taro, simply used his total authority to let the horse continue running.

The direct, manipulative causation, which must be inferred in Japanese, is lexicalized in English in words such as make and force. In English, then, the directness of the causative act is properly a part of semantics (though contextual information would also be involved). It is thus difficult to concoct a context that would cancel the interpretation of direct manipulation if, for

example, make or force is used. Following is the English translation of Kitagawa's sentence in (11).

(12) The time had come for Taro to take the horse back, but, because the horse was running so joyously in the arena, Taro

let
?forced } the horse (to) run a little while more.
?made

2.4. Adversity Causative

Most of the examples we have looked at so far clearly involve some form of causation. The referent of the patient NP carries out an action, having been caused to do so by the referent of the agent NP. If the roles of the participants are such that the referent of the patient NP is naturally totally affected, a non-coercive interpretation is possible.

In this subsection we will look at what Oehrle and Nishio (1981) call "adversity causative." Adversity causatives differ from the examples so far in that they have no causative meaning, and the first NP is not the agent, but the recipient of an adversitive effect. We will restate the concept of "total affectedness" in order to include this type of causative construction.

The following is given by Oehrle and Nishio.

(13) Titioya wa kodomo o sin-ase-ta.
father TOP child ACC die-cause-PAST

The father had his child die on him.

According to Oehrle and Nishio, four readings are possible for (13): (i) "the father intentionally brought about his child's death"; (ii) "he let his child die" (iii) "the father caused his child's death, inadvertently"[9]; (iv) "the father did not cause his child's death, intentionally or otherwise, but he was nevertheless adversely affected by his child's death" (p. 166). While the first three have causative meaning, the last one lacks this meaning in spite of the presence of -(s)ase. This last reading is what Oehrle and Nishio call adversity causative. According to them, this adversity reading is possible only if: (a) the referent of NP o underwent some change for the worse (e.g. died); (b) the same referent did not undergo change intentionally; (c) the referent of NP ga is in some way responsible (e.g. a parent) for the referent of NP o. Conditions (a) and (b) must clearly be inferred from the meanings of individual lexical items, e.g. whether or not an event is "for the worse" is not part of sentential semantics. Condition (c) must also be inferred, but we will restate the "total affectedness" in such a way that

(c) is predicted from a more general pragmatic hypothesis of causatives.

Following are some other examples of adversity causatives given by Oehrle and Nishio.

(14) Hyakusyoo wa (nagaame de) yasai o
farmer TOP long:rain by vegetable ACC

kusar-ase-ta.[10]
rot-cause-PAST

(The long rain) caused the farmer's vegetables to rot on him.

(15) Taroo wa (hukeiki de) kaisya o toosan
TOP depression by company ACC bankrupt

s-ase-ta.
do-cause-PAST

Taro had his company go broke on him (because of the depression).

Two questions must be answered about these adversity causatives. First, why is it that only o-causatives are associated with this interpretation? If we change o in (13) - (15) to ni, only the causative interpretation is possible. Second, what is the function of -(s)ase? It clearly lacks the causative interpretation.

The use of o in these examples surely implies (redundantly) some sense of totality. As noted, the hearer must understand that the referent of the first NP, the one adversely affected, holds

"responsibility" for the referent of NP o in order to get the adversity interpretation. This responsibility must be in no uncertain terms, i.e. total responsibility, for the interpretation to take place. Thus, for example, Oehrle and Nishio point out that, in (15), Taro is understood to be the owner of the company, not just an employee.

I will assume that this sense of totality is a part of a more general pragmatic condition on causatives. In order to include this and also "total affectedness," I propose the following:

> O in o-causative (redundantly) implies that the referent of the patient NP is totally within the scope of influence of the referent of NP ga at the time of V (dying, sitting down, etc.).

The notion "totally within the scope of influence" appears in subtly different forms depending on the semantic content of the sentence and the hearer's inferences. If the referent of NP ga caused the referent of NP o to carry out an action, V, the latter was totally within the scope of the former at the time of causation with respect to V. As we have seen, if this totality of influence is inherent in the roles of the participants, a non-coercive interpretation is possible. If instead the V is understood to represent a "process" as opposed to

"action" (Chafe 1970, Shibatani 1973), the sentence may be interpreted in one of two ways: (i) NP ga caused NP o to undergo V; (ii) NP o underwent V, and NP o was totally within the scope of influence (=responsibility) of NP ga at the time of V. For (ii), the sense of adversity arises if V is understood to represent an unintentional change/process "for the worse." The two interpretations for the process V + (s)ase differ radically in the degree of transitivity. The first interpretation is high in transitivity since an act of causation is carried over from the agent to the patient. The second interpretation has low transitivity despite the presence of -(s)ase since there is no sense in which an action is carried over from NP ga to NP o.

It is something of a mystery that -(s)ase in adversity causatives lacks a causative meaning. One might postulate a "hidden" causer to explain the presence of -(s)ase, which is implied by Oehrle and Nishio in their examples (e.g. "because of depression"). If this were the case, however, we should expect -(s)ase to have the meaning of 'cause'.

What I suggest is that -(s)ase in adversity causatives is functioning purely as a transitivizer, in the sense that, for a V with n number of NP arguments, the corresponding V-(s)ase has n+1 number

of NP arguments. Thus, for example, a V with one NP argument (intransitive) will have the corresponding V-(s)ase with two NP arguments (transitive) (cf. Miyagawa 1980 for more comments on this).

While this analysis of -(s)ase is somewhat speculative, there is one piece of evidence to support it. Oehrle and Nishio point out that the adversity causative interpretation is also possible with lexical causatives.

(16) Taroo wa (syooto de) ie o yai-ta.
TOP short:circuit by house ACC burn-PAST

Taro had his house burnt down on him (because of an electrical short circuit).

Now, they note that it "seems that if the verb does not have a transitive form, the productive causative is used" (p. 168). In other words, if a morphologically simple transitive verb does not exist, the v-(s)ase fills the vacant "slot" and acquires the potential of having the adversity interpretation. The V of V-(s)ase given by Oehrle and Nishio (sin-ase 'cause to die', kusar-ase 'cause to rot', toosan s-ase 'cause to go broke') all lack a lexical transitive counterpart, allowing the adversity reading for the V-(s)ase.

When there is a morphologically simple transitive verb, the "transitive" V-(s)ase cannot have the adversity reading. The one lexical

transitive verb given by Oehrle and Nishio, yak 'burn', has the intransitive counterpart yake. Yake-sase, which is somewhat awkward, is associated with only the causative interpetation. The following is a minimal pair that demonstrates that a lexical transitive prohibits the V-(s)ase from taking on the adversity interpretation.

(17)(a) Taroo wa taisetu ni site ita hune o
TOP love do PAST boat ACC

sizume-ta.
$sink_{th}$-PAST

= Taro caused the boat he loved so much to sink.

= Taro had the boat he loved so much to sink on him.

(b) Taroo wa taisetu ni site ita hune o
TOP love do PAST boat ACC

sizum-ase-ta.
$sink_{intr}$-cause-PAST

= Taro caused the boat he loved so much to sink.

≠ Taro had the boat he loved so much sink on him.

Sizum in (17b) is an intransitive verb which has the corresponding transitive verb sizume given in (17a). While the morphologically simple transitive verb, sizume, can have the adversity reading as

shown by the second English translation for (17a), its existence "blocks" this interpretation for sizum-ase as shown by the impossibility of the second English translation for (17b).[11]

The discussion above suggests that when -(s)ase attaches to an intransitive "process" verb that lacks a corresponding (morphologically and semantically related) lexical transitive, the V-(s)ase fills the vacant transitive "slot." In other words, -(s)ase in these cases acts purely as a transitivizer without contributing any perceptible meaning to the complex verb. I leave open the question of whether this -(s)ase is different from a -(s)ase that appears to contribute the meaning 'cause'.

The following examples illustrate yet another aspect of adversity causatives. In these examples, NP o represents a bodily part of the referent of NP ga.

(18) Hanako wa asi o suber-ase-ta.[12]

Hanako slipped (lit. Hanako caused her feet to slip).

(19) (Boku wa) kata o kor-ase-ta.

My shoulders have become stiff (lit. (I've) caused my shoulders to become stiff).

These examples lack a causative meaning ((18) may

take on such an interpretation in a "marked" context). As expected, the examples meet the conditions for adversity causatives: NP o underwent a change for the worse, the change being unintentional (no intentionality can be involved since the referent of NP o is a bodily part), and the V in V-(s)ase lacks a corresponding lexical transitive form. The examples also meet the condition for o-causatives if we understand "totally within the scope of influence" to mean, in this case, something like "totally within the scope of consciousness."

2.5. Lexical Causative and V-(s)ase

In this subsection, I will briefly discuss the pragmatics of lexical causatives with respect to V-(s)ase.

As stated earlier, when the hearer hears an o-causative sentence, he or she infers that the referent of NP o was totally within the scope of influence of the referent of the agent NP. This inference is crucial if the hearer is to believe that a successful act of causation took place. As it turns out, this same condition must also hold for lexical causatives.

(20) exemplifies a sentence with a lexical causative.

(20) Taroo ga Hanako o tome-ta.
NOM ACC stop-PAST

Taro stopped Hanako.

Here, Hanako must have been totally influenced by Taro with respect to the act of stopping. There is nothing inherent in the roles played by these participants that would naturally obtain this totality of influence. We thus infer that Taro engaged in some manipulative act of causation.

The following example demonstrates tnat a lexical causative does not always have a coercive interpretation.

(21) Sensee wa gakuseetati o (nikoniko warai
teacher TOP student ACC smiling

nagara) heya ni ire-ta.
while room in out-PAST

The teacher put the students in the room (smiling while doing so).

A non-coercive interpretation is possible for (21) because students are usually totally in the scope of the influence of their teacher. We thus conclude that the pragmatic hypothesis for causatives also applies to lexical causatives.

There is one case in which pragmatics distinguishes lexical causatives from V-(s)ase. This is when a lexical causative and V-(s)ase

"compete" for the same interpretation. We have already seen that a V-(s)ase is blocked from being associated with the adversity reading if there is a lexical causative morphologically and semantically related to V. Another consequence of a V-(s)ase and a simple lexical item competing for the same "slot" is noted by McCawley (1978). Appealing to the Gricean maxim of manner (Grice 1975), McCawley argues that a simple verb such as tome 'stop (transitive)' is used "for actions in which the stopping is performed by a standard means, for a standard purpose, and in a standard type of circumstances" while its V-(s)ase counterpart, tomar-ase 'cause to stop (intransitive)' is "reserved for situations that are non-standard in some respect" (McCawley 1978: 69). Following examples are taken from McCawley (1978).

(22)(a) Kii de enzin o tometa.
key by engine ACC stopped$_{tr}$

He stopped the engine with the key.

(b) Kii de enzine o o tomar-ase-ta.
key by engine ACC stop$_{intr}$-cause-PAST

He made the engine stop with the key.

According to McCawley, (22a) "refers to a normal use of the key . . . whereas [(22b)] will refer to some non-standard use of the key, e.g. throwing the key into the engine so as to cause the engine to jam"

(Ibid.). If the lexical causative is unavailable, the V-(s)ase will often fill the vacant slot for expressing standard, predictable acts (cf. Miyagawa 1980, Jacobsen 1981), very much like the case for adversity causatives.

3. Ni-Causative

I demonstrated in the preceding section that the various types and degrees of causation associated with o-causatives arise out of one pragmatic principle: if A caused B to do V, then it must be the case that B was totally in the scope of influence of A with respect to V. It is the hearer's task to appeal to contextual information to see how this totality of influence was obtained. If the hearer concludes that a coercive action was the only way to obtain it, he or she would attribute a coercive interpretation. If the totality of influence is inherent in the roles of the participants, as in the case of a teacher making his/her students sit down, the hearer can attribute a non-coercive interpretation to the sentence.

In this section we will look at ni-causatives. Some linguists have argued that this construction contains 'let'/'less coercion' as a part of its meaning (e.g. Kuno 1973, Shibatani 1973). Harada (1973) and Tonoike (1978) argue for a different kind

of semantic distinction, namely, that the complement V of V-(s)ase in ni-causatives must be "self-controllable," while no such restriction exists for o-causatives. Tonoike claims that this is the only semantic distinction between o- and ni-causatives. We will see that both 'let' and "self-controllability" are derivable by purely pragmatic means.[13]

In attempting to shed light on ni-causatives, one basic problem is to account for the function of ni. Unfortunately, we do not at present have a coherent theory of particles which might provide insight into this problem. The particle ni may turn out to be a reflex of a theta role assigned to the NP by the verb, as is suggested by Williams (1982), in which case it has some semantic force.

Whatever semantic/syntactic function ni turns out to have, I will assume that it also has a pragmatic function. I will argue that ni signals the hearer to suspend the obvious inference that the referent of NP ni was totally within the scope of influence of the referent of NP ga at the time of V. Among other things, this will automatically rule out adversity causatives since it crucially depends on the totally influenced/responsible interpretation.

3.1. Use of ni in Non-causative Constructions

The use of ni in ni-causatives is highly marked. I know of no other construction in Japanese that has an equally high transitivity and allows the "patient" NP to be marked with this particle. This ni is, however, commonly found in sentences with low transitivity.

(23) Taroo ga Hanako ni hanasi-ta.
NOM to speak-PAST

Taro spoke to Hanako.

(24) Tosiko ga gakkoo ni it-ta
NOM school to go-PAST

Toshiko went to school.

(25) Kodomo wa oya ni nite i-ru.
child TOP parents DAT resemble

Children resemble their parents.

In these non-causative sentences, there is no sense in which an action was carried over or transferred from NP ga to NP ni. In (23), for example, the fact that Taro talked to Hanako does not by itself imply that Hanako was affected.

Let us then assume that the use of ni in ni-causatives is an extension of ni in low transitivity, non-causative constructions. Its primary function with respect to transitivity is to lower the inherently high degree of transitivity of

a causative sentence. For the hearer, this is a signal that, at the time of causation, NP ni was not completely in the sphere of influence of NP ga with respect to V.

3.2. Where "Let" and "Self-Controllable" Interpretations Come From

When the hearer hears a ni-causative such as

(26) Taroo wa kodomo ni suwar-ase-ta.
TOP child sit-cause-PAST

Taro caused the child to sit down.

the hearer understands that the child sat down, and Taro had something to do with this event having taken place. But because of ni, the hearer cannot infer that the child was completely influenced by Taro to carry out the act. If there is nothing in the context to indicate why total influence was not obtained, a most natural conclusion to draw is that the child wanted to sit down, and Taro only gave his permission to do so. It is this natural inference which led some linguists mistakenly to postulate 'let' as a part of the meaning of ni-causatives.

It is also natural to conclude that, if the child carried out the act of V on his own, only getting permission or whatever from the agent, then V must be self-controllable. This again is a

pragmatically induced interpretation based on the inference that the child acted on his own (i.e. he had the desire to do V).

The following is given by Harada (1973) as a minimal pair to demonstrate that ni-causatives must have a self-controllable complement verb.

(27)(a) Taroo wa tomodati o komar-ase-ta.
TOP friend ACC be:bothered-cause

Taro caused his friend to be bothered.

(b) *Taroo wa tomodati ni komar-ase-ta.

Our hypothesis of ni-causative predicts that a sentence such as (27b) should be acceptable given an appropriate context. The following, which is intended to be an utterance by the president of a company to the employees, is such an example.

(28) Tasika ni mondai wa aru. Sikasi kimitati ga
sure problems exist but you NOM

nayamu hituyoo wa nai. Watakusi ni
worry need TOP not I

komar-ase-te okinasai.
be:bothered-cause

Sure there are problems. But you don't have to worry about them. Let me do the worrying.

Under normal circumstances a company president is not totally influenced by his/her employees. This is consistent with the occurrence of ni: by lowering the transitivity of the sentence, it indicates to the hearer that watakusi 'I' is not totally within the scope of the agent NP which is understood as referring to the employees (the referent of the presumed NP ga).

Our hypothesis also predicts that a ni-causative is awkward (or is reserved for a non-standard context) if the roles of the participants imply that the referent of NP ni is totally under the influence of the referent of NP ga. The following example illustrates this.

(29) ?Keekan wa hannin ni suwar-ase-ta.

The policeman caused the suspect to sit down.

We expect a suspect in custody to be totally under the influence of the police. If (29) is used, we infer that something out of the ordinary is involved, e.g. the suspect is badly hurt.

It is a fact that there is an intuitively-felt difference between o and ni-causative. The act of causation depicted by o-causative is normally

interpreted as more direct and manipulative than that of ni-causative. From the discussion above, we can see that this difference is not due to sentence semantics. Rather, it is due to inferences that are conventionally triggered (or suspended) by these causatives. In the case of ni-causative, we readily infer that the agent "let" the patient NP carry out the act since the particle signals that the latter was not completely influenced by the agent to do so. In turn, we infer that the action carried out must be self-controllable.

We can also see that in a transitive V + (s)ase construction, in which there is no o/ni alternation, the burden of interpretation is really put on the hearer to find out how the act of causation was brought about. The hearer must first make or suspend the inference that the causee was totally in the scope of influence of the causer strictly on the basis of contextual information. Once this decision is made, the other pragmatic factors come into play to trigger a chain of inferences that allows the hearer to attribute an interpretation to the causative sentence.

4. Concluding Remarks

In any given language, syntax, semantics, and pragmatics together make it possible to express the

notion of causation. The following diagram and characterization of these three aspects of language by Fillmore help to put in perspective the observations made in this paper (Fillmore 1981: p. 144).

(30)	Syntax	[form]
	Semantics	[form, function]
	Pragmatics	[form, function, setting]

> Syntax . . . characterizes the grammatical forms that occur in a language, whereas semantics pairs these forms with their potential communicative functions. Pragmatics is concerned with the three-termed relation that unites (a) linguistic form and (b) the communicative functions that these forms are capable of conveying, with (c) the context or setting in which those linguistic forms can have those communicative functions.

In a language such as English, types of causation are lexicalized into words such as <u>make</u>, <u>force</u>, <u>have</u>, and <u>let</u>. In English, then, form and function represent the different types of causation. The form and function need only to be matched with the appropriate setting to convey the literal meaning.

In Japanese, form and function of causation are relatively impoverished. Distinctions such as 'make' and 'let', and sometimes even a lack of causation, must be entirely induced by the setting in which the sentence occurs. This is not to say that Japanese is less capable than other languages of expressing causation. It just happens that Japanese places the burden of interpretation on the setting, and not on form and function.

NOTES

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[1] o is the accusative case marker. Some linguists characterize the particle ni as a dative case marker (e.g. Martin 1975: 191) while others view it as a postposition (Comrie 1976b, Saito 1982). This controversy is not relevant to the present study.

[2] The idea of associating some concept of "totality" to o-causatives was first suggested by Kitagawa (1974). He characterizes o-causatives as the agent having "total responsibility" for the

action while the agent in ni-causatives has only "partial responsibility."

[3]The concept of "total affectedness" will be modified later in the paper.

[4]The use of A(gent) and O(bject) is adopted from Dixon (1979).

[5]Sugamoto (1982) also argues that o designates "total affectedness," hence marking the high transitivity of a clause. Our characterization of o in o-causatives is slightly different (though compatible): o in o-causatives redundantly marks the high transitivity of the causative clause.

[6]In a recent paper, Shibatani (1982) also uses the notion "total affectedness" for o-causatives. He suggests that: (a) "the accusative case is related to the notion of total affectedness of" the object NP; (b) "the 'total affectedness' is realized in the sense of coercion and direct causation as well as total control over the causee" (p. 111). He claims that the latter point semantically distinguishes o-causatives from ni-causatives. While the notion of total affectedness is clearly relevant to the interpretation of causatives, an analysis that includes it as a part of the meaning of causatives has one unfortunate consequence. In such an

analysis, intransitive V + (s)ase and transitive V + (s)ase, which share the same range of interpretations, do not share the same source for those interpretations. For intransitive V + (s)ase, the source would be sentence semantics because of the o/ni alternation, but the source for transitive V + (s)ase would be something else, presumably pragmatics, because this construction does not have the o/ni alternation. Our account appeals strictly to pragmatics for all interpretations of the causative construction.

[7]Susumu Kuno has pointed out to me that if (6) appears with "object" honorification, the "forceful" interpretation does not obtain.

(i) Gakuseetati ga sensee o o-suwar-ase sita.

The students caused the teacher to sit down.

This suggests that the honorific morphology triggers another parameter of pragmatics.

[8]I am grateful to Susumu Kuno for pointing this out to me.

[9]This interpretation of "inadvertence," which must be inferred in Japanese, is apparently lexicalized in Thai. Vichi-Vadakan (1976) points out that there are three causative verbs that appear in periphrastic constructions: hây for intentional

causation, tham for inadvertent causation, and tham hây for causation neutral to intentionality.

[10]See also Shibatani (1973) for a discussion of this type of causative.

[11]The phenomenon of blocking was first noted by Aronoff (1976). See Miyagawa (1980, 1981) for cases of blocking in Japanese.

[12]See Inoue (1976) for discussion of this type of causative.

[13]See Farmer and Kitagawa (1981) for some counterexamples to the claim that ni-causatives must have a self-controllable complement verb. Inoue (1978a) proposes the feature "Self-Controllable" in her analysis of Tough sentences; this claim is challenged by Saito (1982).

THE STATUS OF KOKUJI: USAGE OF IDEOGRAPHS UNIQUE TO JAPAN

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1. Introduction

1.1. Adaptations of Chinese Ideographs on the Asian Mainland[1]

Chinese ideographs (commonly referred to as Chinese characters or kanji) underwent varying degrees of adaptation by the Mongols and Tungus (which are referred to as Khitan and Jurchen here), Vietnamese, Koreans and other peoples on the Asian mainland before being set aside in favor of phonetic scripts specifically created for individual languages. Twelfth Century Jurchen script, for example, appears to have been a mixture of ideographic and phonetic components:

Chinese Character	Jurchen Character	Meaning
天	天 戈	heaven
日	日	day
月	月	moon
風	風 土	wind

Khitan script of the 10th Century gave the component 水 a syntactic function by using it to indicate possessive case in the manner below:

Khitan Character	Meaning
主 王	emperor
主 [illegible]	emperor's
[illegible]	younger brother of the emperor
[illegible]	emperor's younger brother's

Eleventh Century Hsi-hsia characters, while only remotely resembling those of the Chinese, seem to have employed the concept of the radical or classificatory component in a manner similar to that of the Chinese. The Hsi-hsia characters below include, 亥 , a radical designating the meaning 'human' at the left of each character:

Chinese Character	Hsi-hsia Character	Meaning
舌	𢑚	tongue
口	𢑚	mouth
心·心臟	𢑚	heart
骨	𢑚	bone
髓	𢑚	marrow

Other Hsi-hsia radicals are as follows:

Chinese Radical	Hsi-hsia Radical	Meaning
犭	𢑚	animal
虫	𢑚	insect
[no equivalent]	𢑚	dog
[no equivalent]	𢑚	finger
手	𢑚	hand

The Hsi-hsia also included semantic components as an intrinsic part of a character. The component 刂, for example, indicates 'negative' or 'opposite' as in the following:

𢑚	collect	𢑚	scatter
𢑚	forget	𢑚	think

The component 𠃌 changes nouns into verbs in the manner below:

衣	clothes	衣	to wear
兵	weapon	兵	to fight

Of further interest is the Hsi-nsia technique of juxtaposing components in characters which they considered closely linked in nature. Observe how the right and left components are interchanged in the pairs below:

Hsi-hsia Character	Meaning
指	finger
爪	nail
水	water
魚	fish
雷	thunder
電	lightning

1.2. Japanese National Language Policy and Kokuji

Japan shared in this early process of adaptation by arranging components of Chinese kanji to form kanji unique to Japan. Referred to as kokuji such ideographs are not to be confused with simplified forms of Chinese kanji which are likewise an intergral part of Japanese script.[2] Recall that Japan not only created two phonetic syllabaries but also retained Chinese kanji both in their

original shapes and in simplified forms, ascribing to these kanji Chinese on and Japanese kun pronunciations. Consequently, from the standpoint of script formation, there are four distinct units in the Japanese writing system:

1. Directly imported kanji in simplified or complex form,
2. Katakana, the phonetic syllabary that was developed quite possibly under the influence of the Korean method for reading Chinese,
3. Hiragana, the phonetic syllabary invented by Japanese women as their personal vehicle of literary expression at a time when usage of kanji and katakana was restricted to men of the ruling class, and
4. Kokuji, the 'national characters' which were created in Japan and not used by the Chinese.

In 1946 the Japanese Ministry of Education prescribed 1,850 Toyo kanji for general use in contemporary publication. Authors, journalists, and even the average letter writer, however, could not strictly follow this prescription because many proper names consisted of kanji that had not been included among the 1,850. By 1952 social pressure had convinced the Japanese Government to issue a

list of an additional 92 kanji for use in given names for the newborn. Finally, in 1981 a new series of 1,945 characters known as Jōyō kanji was issued. This consisted of the original 1,850 kanji plus an additional 95. At the same time a new kanji policy permitted use of 166 kanji as given names thereby giving official sanction to a total of 2,111 characters for common use in contemporary Japan. The fact that this number is still insufficient can be seen from the 6,346 ideographs included in the Japanese Industrial Standard (JIS) List issued in 1978.[3] This figure is a more realistic estimate of the variety of kanji transmitted by computerized teletype in Japan today. The discovery and identification of kanji unique to Japan is likely to result in an expansion of the JIS list. The degree of significance such kokuji may be seen to have will determine whether or not they merit a place on any future list for common use issued by the Ministry of Education.

2. Identification of Kokuji

2.1. Morohashi's Dai Kan-Wa Jiten as the Starting Point for Kokuji Research

At first glance the existence of kokuji is somewhat puzzling for one would assume that there existed a supply of Chinese kanji plentiful enough

to serve all of Japan's communication needs. Chinese kanji had even been given Japanese phonetic values as manyōgana from the early fifth century, assuming a role which the phonetic scripts would fill four centuries later. For a polysyllabic language wherein both case-marking particles and inflectional suffixes are essential, a phonetic alphabet was clearly more efficient than the relatively cumbersome manyōgana. This sort of efficiency, however, cannot be cited to fully explain the development of Japan-made kanji as additions to the enormous repertory of kanji. Instead, an explanation is also to be sought in terms of the kinds of items for which the Japanese assumed there were no equivalent Chinese names. Observe, for example, the kokuji below.[4]

no 丿 : 丷 shime, 人 nari, 夂 monme.

fishhook 乙 : 氰 denki.

man 人 : 俣 mata, 俤 omokage, 俥 kuruma, 俣 mata.

windy 几 : 凧 tako, 凩 kogarashi, 凪 nagu.

wrapping 勹 : 匂 niou.

mouth 口 : 噺 hanashi.

earth 土 : 圦 iri, 圷 akutsu, 垪 ha, 塀 hei.

woman 女 : 姥 date, 嬶 kaka.

mountain 山 : 峠 tōge.

river 川 : 川 kun.

heart 心 : 怺 koraeru, 𤕌 susumu.

hand 手 : 扒 hameru, 扱 sate, 拶 mushiru.

tree 木 : 杢 moku, 杣 soma, 朽 tochi, 枠 waku, 枡 masu, 栂 toga, 栃 tocni, 柞 kase, 梺 fumoto, 柿 shikimi, 椙 sugi, 椚 kunugi, 椛 momiji, 椽 hazau, 椿 katsura, 榀 komai, 榁 muro, 榊 sakaki, 樫 kashi, 樠 buna, 橲 tsusa, 椦 nude, 欟 tsuki, 椢 masu.

hair 毛 : 毟 mushiru, 毳 mushiru.

fire 火 : 熕 kō, 燵 tatsu.

tile 瓦 : 瓩 kirowatto, 瓰 deshiguramu, 瓱 miriguramu, 瓲 kiroton, 瓧 dekaguramu, 瓸 hekutoguramu, 瓱 sarake, 瓲 senchiguramu.

rice paddy 田 : 畑 hata, 畠 rakibari, 畠 hatake.

sickness 疒 : 癪 syaku.

stone 石 : 硲 hazama

bamboo 竹 : 笹 sasa, 篠 sasara, 篠 shinshi.

rice 米 : 籾 momi, 粂 kume, 糀 kōji.

thread 糸 : 綛 kasuri, 緘 odosu, 纃 kasuri, 纐 kō, 繧 un.

ear 耳 : 聢 shikato.

ship 舟 : 艌 utsuke, 艚 sori.

grass 艹 : 苏 susa, 苞 tokoro, 莪 kutabire, 菜 sukumo, 莚 goza, 蘭 akebi, 蘰 katsura.

insect 虫 : 蚫 hō, 蛯 ebi, 蟎 dani.

clothes 衤 : 裃 kamishimo, 裄 yuki, 褄 tsuma, 襷 chihaya, 襷 tasuki.

body 身 : 躰 segare, 躰 nerau, 躰 utsuke, 躰 shitsuke, 躾 shitsuke, 軈 yagate.

road 辶 : 辶 suberu, 辻 tsuji, 込 komu, 迚 tote, 逋 appare.

wine 酉 : 酛 sakenomoto.

metal 金 : 鉌 kasugai, 鋲 byō, 錺 kazari, 鍼 buriki, 鏈 sakaboko, 鎹 kasugai, 鎺 habaki, 鑓 yari, 鈂 habaki.

gate 門 : 閊 tsukaeru, 閖 yuru.

leather 革 : 鞆 tomo, 鞐 kohaze.

wind 風 : 颪 oroshi.

food 食 : 饂 un, 饂 un.

horse 馬 : 馱 boku.

fish 魚 : 魞 eri, 鮲 namazu, 鮴 hio, 鮖 kajika, 鮓 isaza, 鮗 konoshiro, 鮥 bora, 鮇 mate, 鮠 ugui, 鮒 asari, 鯱 subashiri, 鯑 kazunoko, 鯒 kochi, 鯰 namazu, 鯱 syachi, 鯲 dojō, 鯷 hamo, 鯉 muroaji, 鯊 haya, 鯧 haraka, 鯤 gigi, 鰯 iwashi, 鰰 hatahata, 鰜 kō, 鰈 haya, 鱈 tara, 鱚 kisu, 鱤 saba, 鱠 eso, 鱐 hatahata, 鱙 shibira, 鰳 kyō, 鰺 ai, 鰩 shiira, 鱓 hae.

bird 鳥 : 鴆 nio, 鴫 shigi, 鵆 chidori, 鴨 toki, 鵤 ikaruga, 鷚 kakesu, 鶚 isuka, 鶲 kikuitadaki, 鶇 tsugumi.

hemp 麻 : 麿 maro.

The 170 characters arranged by radical above represent the total number of kokuji which the present writer has been able to find among the 49,000 entries in Morohashi's Dai Kan-Wa jiten. A reading of the Shinsen jikyō, compiled between 890 and 901, shows that among these 170, kokuji such as the following were already in use by the end of the ninth century:

楮 kazura, 榊 sakaki, 欟 tsuki, 蚫 awabi, 鯔 hamo, 鮗 konoshiro, 鯊 subashiri, 鰒 haraka, 鯰 namazu, 鴾 toki.

Kokuji in the Shinsen jikyō itself, however, totaled 429.[5] While many of these disappeared during the course of the succeeding centuries, it is nevertheless instructive to rank them by radical for an overview of the kinds of names which seem to have been most needed:

Radical	Number of Kokuji
木 wood	108
艹 grass	87
金 metal	81
虫 insect	68
鳥 bird	37

Radical	Number of Kokuji
魚 fish	34
酉 wine	9
女 woman	5

Most of Morohashi's kokuji, however, are not found among the 429 of the Shinsen jikyō. 66 of Morohashi's kokuji appear among the 81 kokuji in the Dōbun tsūkō compiled by Arai Hakuseki in 1760. 80 of Morohashi's kokuji appear among the 120 kokuji in the Kokujikō compiled by Ban Naokata in 1818. The fact that there is a gap of eight centuries between the Shinsen jikyō and these later works suggests that most of the kokuji in active use today were created between the 10th and the 18th centuries. Discovery of the exact century in which a particular kokuji was created is a task for future research. At present one may say only that the following five kokuji of Morohashi might have been created between 1760 and 1818 insofar as they are listed by Ban Naokata but not by Arai Hakuseki:[6]

鉄 byo, 鱚 kisu, 鰹 katsura,
蒸 mushiru, 怺 koraeru.

One of the reasons for the disappearance of early kokuji may well be the fact that written language had been limited to a relatively small circle. It was only with the advent of wood block

printing that written language came to be disseminated widely and characters stood a greater chance of survival by being spread among the populace at large. With the application of computerization and high-speed typesetting, this is even more true for 20th century society. It is therefore necessary to make a comparison of the kokuji in Morohashi with those in other dictionaries being used today.

2.1.1. Kokuji Found in Other Sino-Japanese Dictionaries but not in Morohashi

Gakken's Kanwa daijiten contains 121 kokuji. Sixteen of these kokuji do not appear as kokuji in Morohashi:

丼 donburi, 働 do, 叺 kamasu, 呎 fiito, 喰 kurau, 噸 ton, 搾 saku, 柾 masa, 桃 momiji, 簗 yana, 粁 kirōmētoru, 粍 mirimētoru, 糎 senchi, 腺 sen, 膵 sui, 錵 nie.

Kadokawa's Kanwa chūjiten contains 112 kokuji. 4 of these do not appear as kokuji in either Morohashi or Gakken:

咖 garon, 籾 momi, 諾 jō, 鮟 an.

Ueda's Daijiten contains 180 kokuji. 29 of these do not appear as kokuji in either Morohashi, Kadokawa or Gakken:

开 sono, 听 pondo, 井 bosatsu, 芾 nehan, 攛 obikidasu, 榜 taku, 𣗳 kusabi, 煳 yaku, 癌 gan, 礵 hiso, 𠮷 dekarittoru, 𠮷 deshirittoru, 𠮷 hekutorittoru, 𠮷 senchirittoru, 𠮷 dekameetoru, 𠮷 hekutomeetoru, 蟘 himushi, 賬 kanjō, 踊 fumu, 軘 densha, 雫 shizuku, 鮮 hirame, 伕 otto, 𠮷 tsutomu, 吻 suguchi, 吋 dasu, 啢 onsu, 鮰 katsuo, 鷭 ban.

If one adds the 170 from Morohashi, 16 from Gakken, 4 from Kadokawa and 29 from Ueda, one arrives at a total of 219 kokuji. But the total is not conclusive. For example, the character shizuku 雫 which appears as a kokuji in Ueda is listed in Morohashi as a regular Chinese character (not as a kokuji). This discrepancy cannot be resolved by stating dogmatically that one dictionary is more authoritative than another. One must go to the original sources of the compilers and then beyond them to earlier ones. The section below presents

this writer's findings as to why some characters are presented as kokuji in one dictionary and not in another.

2.1.2. Interpretations of Kokuji:

There is no debate about the fact that there do exist characters which were actually created in Japan and which had never appeared in China before. On the other hand, there are characters which were created in China but which had been used so infrequently there as to have lost their meaning or to have taken on a meaning entirely different from the original. The character shizuku 雫 , for instance, appeared in Japan in the 9th century and continued into modern times. Though the same character existed in China, it had no recorded active use because its meaning had been lost. Even if the Japanese merely thought they had created the shizuku character (being ignorant of the fact of its existence in China), a case could be made for the inclusion of shizuku as a kokuji. The character was virtually dead in China but was revived linguistically in Japan. For all practical purposes, it is a Japanese character, but this does not resolve the question as to whether or not it should be classified as a kokuji.

Tako 鮹 is an example which involves a change in meaning. Tako was mistakenly written by the Japanese as 蛸 on the basis of the original Chinese 海蛸子 . Because the Japanese knew that the 蛸 character by itself meant 'spider' in Chinese, the Japanese replaced the 虫 insect radical by the 魚 fish radical. They assumed, therefore, that they had created an appropriate kokuji for 'octopus.' Later research, however, found that the character 鮹 had already existed in China. Yet, it did not mean 'octopus,' but referred to a type of fresh water fish. Once again, the Japanese believed that they were forming a new character. Since the Chinese still do not use 鮹 to mean octopus, is one justified in referring to that character as a kokuji?

It may be reasonable to refuse to accept as a kokuji any character which existed in China before it appeared in Japan regardless of a loss or change in the Chinese meaning. But here one is faced with a problem brought about by other characters, especially those used for Western measurement. Characters such as senchi 糎 'centimeter' and ton 噸 'ton' are not recognized as kokuji in the Dai Kan-Wa jiten although all other contemporary major dictionaries treat them as kokuji. Did these

characters for 'centimeter' and 'ton' appear first in China or did they first arise in Japan?

Upon examining dictionaries dating from the early 19th century through the first 3rd of the 20th, one finds that the word senchi first appears in the Ei-Ka-Wayaku jiten of 1879.[8] However, under the entry "centimeter" the Japanese equivalent is given as イチノートル ノ ヒャク ブン ノ イチ while the Chinese equivalent is given as 四分半. The character 糎 is not used. The latter first appears in the Mohan Ei-Wa jiten published by Sanseido in 1911.[9]

The word ton first appears in a concise dictionary compiled by the Tokugawa Shogunate. Here in the Ei-Wa taiyaku shuchin jisho of 1862 the phrasing 廿目ノ名, ニチポンドニ当ル indicates ton to be the name of a measurement equal to 2000 pounds.[10] The character 噸 first appears about 7 years later in the Wayaku Ei jisho of 1869 with an explanation that the measurement refers to 2,240 pounds in England and 2,000 in the United States.[11]

If the characters for senchi and ton cannot be found in Chinese materials dated prior to 1911 and 1869 respectively, there are grounds for treating them as kokuji, but their appearance in Chinese materials of a later date would make them examples of a peculiar phenomenon, namely, the importation of

Japan-made kanji into the Chinese language. Such characters are not limited to words arising from Western influence. Characters such as 鱈, 働, 腺 originally arose in Japan and then became incorporated in modern Chinese.[12]

Therefore, in addition to the problem of characters which Japan revived or to which Japan assigned a different meaning, debate may range over the categorization of a character such as hataraki 働 which appears today in Chinese dictionaries. Morohashi, for example, states within the entry definition that hataraki was created in Japan but he does not label it as a kokuji.

3. Unfamiliar Characters

3.1. Kokuji in Place Names[13]

Fifty-five unfamiliar characters that are found in place names follow below.[14] The reading of the entire place name is given and the reading of an unfamiliar character as it would stand by itself is underscored. In the case of a character which appears relatively frequently in place names, the usual reading is given only once. When a different reading is used, however, that reading is given.

1. 哘 sasou
2. 大垈 ōnuta
   大垈 onta
3. 一本木垰 ippongidao
   三坂垰 misakadawa
   中三坂垰 Nakamisakatōge
   大垰 ōtō
4. 垳 gake
5. 垬下 mamashita
6. 垰下 hakeshita
7. 熊塔 kumasako
   古塔 kozako
8. 垭瘦 gomiwata
9. 大垪 ōnukari
10. 圸ノ上 mamanoue
11. 墹之上 mamanoue
12. 屶振 kataburi
    屶巻 natamaki
13. 岩峅寺 iwakuraji
14. 岼 yuri
15. 才ノ嵶 onotawa
16. 葵谷 wasabidani
17. 広岾町 hiroyamachō
18. 楞島 ōkoshima
19. 椣原 hidehara
20. 樮川 okusonogawa
    樮川 hokusonogawa
21. 櫛山 tamoyama
22. 枴田 okōda
23. 三ッ椡 mitsukunugi
24. 椨川 tafukawa
25. 椥ノ森町 naginomorichō
26. 樢之浦 kashinoura
27. 檀木 harinoki
28. 掵上 habaue
29. 夕湘港 yūnagikō
30. 畩ヶ山 kesagayama
31. 裳岩 horoiwa
32. 硴原 kakihara
33. 穮 sai
34. 明窯 mogahotsu
35. 筑井 utsuboi

36. 簗	yana	46. 鏁本町	yanamotochō
37. 向籏屋	mukaihataya	47. 野闔	nokazuki
38. 粭島	sukumojima	48. 魨山	todoyama
39. 糘地	sukumoji	49. 鮴崎	mebarusaki
40. 糠塚	shiinazuka	50. 鯆留小屋	iwanadomegoya
41. 縄付	horotsuke	51. 鮀澗	hokkema
42. 姥范	ubayachi	52. 鸕鼻	bishagobana
43. 蘿川	tsuzuragawa	53. 堀田隊	hottasai
44. 蘀島	hiejima	54. 阡	naru
蘀生	hiu	55. 轌ノ目	sorinome
45. 鍛冶屋逧	kajiyaseko		
小逧	kozako		

Among the above 55 characters, six characters appear with the same reading more than twice. These represent two types of distribution:

1. the character appears in the same geographical region many times, e.g. in the same prefecture.
2. the character appears throughout Japan.

The 6 characters in question are the following:

垰 tōge	appears 48 times in place names but only in 3 prefectures: Hiroshima, Shimane, and Yamaguchi.
苑 yachi	appears in 10 place names but only in Aomori.
笠 nuta	appears 6 times in Yamanashi.
裏 horo	appears 5 times mainly in Iwate but also in Aomori.
鮭 todo	appears 4 times mainly in Iwate but also in Aomori.
簗 yana	appears 16 times extending from the Tōhoku area to Kyūshū.

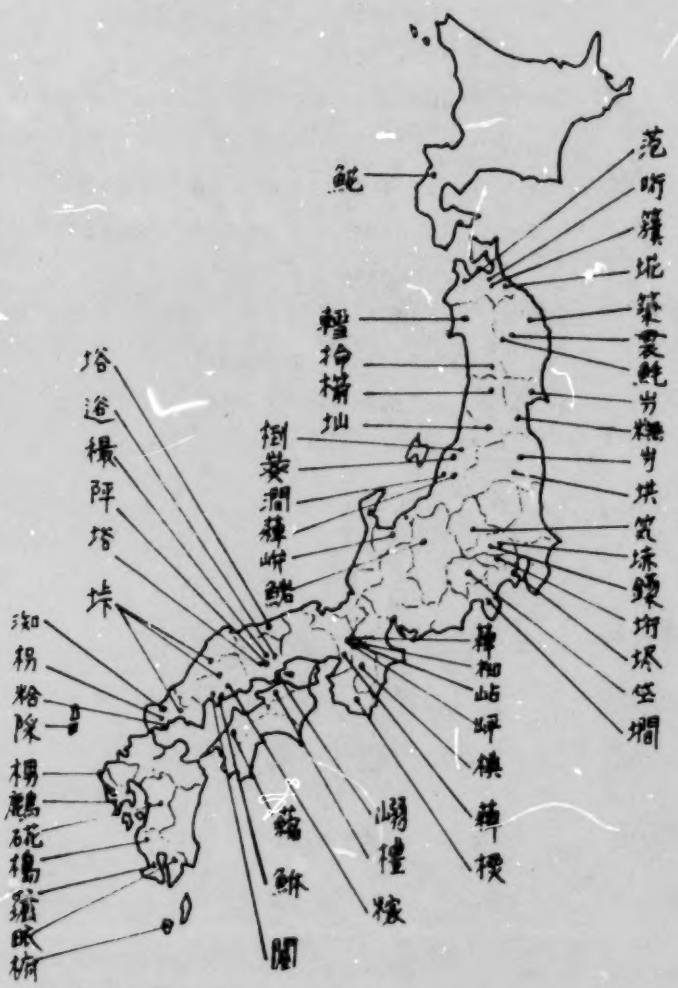
Among the remaining 49 characters, a number are thought to have identifiable areas of local origin, e.g.

Kyōto: 岼 yuri, 岾 yama, 椥 nagi.

Kagoshima: 椨 tafu, 槝 kashi, 畩 kesa, 窳 hotsu.

Note the general distribution of all 55 on the map below.[15]

MAP



鮀
范
哘
籏
坭
篥
裘
魨
屴
糎
屴
烘
笂
垛
鎟
垳
垛
垈
墹
轀
拎
椯
圳
樹
婁
澗
蕈
岬
鮨
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硴
樢
蘊
眠
椨
蕈
柳
岾
岬
樸
蕈
楔
嵶
樸
糉
鮴
闉

Twelve of the 55 characters discussed above are found in the Nihon Rekishi Chimei Taikei.[16] Each of the 12 is listed below together with the date of the oldest written record in which it appears:

椣	hide	1615	掵	haba	1723
糘	sukumo	1619	轌	sori	1730
范	yachi	1664	哘	sasou	1789-1801
淅	nagi	1676	鮴	mebaru	1825
垝	gomi	1697	岼	yuri	1840
粭	sukumo	1719	椥	nagi	1876

Hide is clearly the earliest character recorded here having existed as a place name for 367 years.

Mebaru, however, along with 5 additional characters can be found in older Japanese dictionaries[17] dating from as early as 500 years ago. Note that the character 鮴 is given the reading gori (rather than mebaru) in list below:

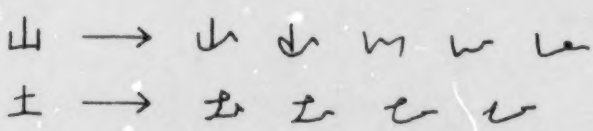
character	dictionary
緄 horo	Umpo Irohashū (seikadō bunko) 1547-48
	Setsuyōshū (gyōkūbon) 1565
	Setsuyōshū (ryōsokuinbon)? 1643
	Setsuyōshū (sōdaibon)?
	Setsuyōshū Taizen 1680

稗	hie	Wagyokuhen (henmoku shidai: Keichō jūgonenbon) 1610
岾	yama	Wagyokuhen (henmoku shidai: Keichō jūgonenbon) 1610
籏	hata	Setsuyōshū Taizen 1680
鰥	gori	Setsuyōshū Taizen 1680
簗	yana	Shogenjikō Setsuyōshū 1669

In contrast to the above six characters which have the same form now as they did in earlier centuries, two others, horo 褤 and wasabi 葵 are found only as two separate characters 母 衣 (ho + ro) and 山 葵 (wa + sabi) in older dictionaries.

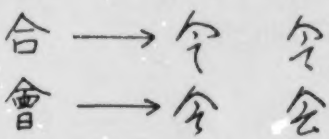
The characteristics of Japanese calligraphic style may have been a factor in the derivation of nuta 岱 and sukumo 粭 .[18] The Ikyōshū copy of the Setsuyōshū contains a different character with the reading nuta, namely, 岱 .[19] A search for this latter character in Morohashi reveals that it is presented as a Chinese character with on readings of tai and dai. It refers to the name of a mountain or means something large in appearance. However, the reading nuta is not ascribed to it by either Morohashi or other contemporary dictionaries. Most probably nuta was indeed the Japanese kun reading for 岱 centuries

ago. Quite possibly the kokuji nuta 垈 was the result of a copyist's misreading while the character 貸 was being transcribed from grass style into printed style. Observe, for instance, the various forms of tsuchi 土 and yama 山 when written in grass style:



Since each shape of the final form is quite similar, the original yama may have been misrepresented as tsuchi, thereby resulting in 土 rather than 山 . The semantic relationship between yama 'mountain' and tsuchi 'earth, soil, the ground' may also have been a contributing factor.

In the case of sukumo 粭 , one finds the character 糅 , written in grass style under the section for grain in the Saijōshū. A comparison of the grass style forms of the component 合 and the character kai 會 again shows a similarity:



A search through the Shinsen jikyō, Ruiju myōgishō, Iroha jiruishō, and the Jikyōshū reveals that the character 糅 was given a number of readings

including nuka, aranuka, urushine, momi, and sukumo. The character 糠 when read sukumo may have been the form from which 粭 was mistakenly created due to the grass style form that was common to both.

Of the original 55 characters only 6 appear in modern Japanese dictionaries.[20] Tabu 椨, horo 縄, yana 簗, and hokke 鮴 appear unchanged. Sori 轌 and iwana 鰤 each appears in modern dictionaries as two separate characters, i.e. 雪車 (so + ri) and 岩魚 (iwa + na). As place names, sori 轌 and iwana 鰤, therefore, represent the method of combining on a horizontal plane in contradistinction to the vertical combining of 久 and 米 to form kume 粂 discussed earlier.

The meaning of several characters has been derived through geographical studies in terms of their relationship to terrain, for example, hake 埰 'cliff of red earth,' yachi 范 'damp area,' yuri 岼 'mountain plateau,' and tawa 嶓 'gradually sloping mountain.'[21]

3.1.1. Relationship Between a Place Name and the Characters Ascribed to It

Because new place names in modern times are established together with appropriate characters,

there is a tendency to forget that this has not always been the case. In earlier times place names were likely to have arisen as part of the spoken language only. Consequently, when researching a place name kokuji, it is not known at the outset whether any kanji once preceded it, whether the kanji that may have preceded it was dropped once the passage of time had made it inappropriate, or whether the emphasis in ascribing a new character had been on pronunciation or meaning.

The people of a region may name a place after a prominent geographic feature, an event important to local history, or functions such as mining, washing, trading and so forth that occur at the spot. Over time such functions, historical associations, and even geographic features may change. The original name will lose its meaning or its significance as may any character associated with it. A new character might then be ascribed, one with the same pronunciation but with a more current meaning. Alternatively, a new character might be ascribed due entirely to a resemblance in pronunciation, with the new character mistakenly assumed to reflect the original meaning. In all, four possible alternatives arise over time:

1. The place (Z) is still associated with its original pronunciation (X) and meaning (Y).

2. The pronunciation is retained but a new meaning (B) is given.
3. The meaning is retained but a new pronunciation (A) is given.
4. The place is given both a new meaning and a new pronunciation.

Name at Time T_1		Name at Time T_2
Z(XY)	$\longrightarrow$	Z(XY)
		Z(XB)
		Z(AY)
		Z(AB)

The status of the name at Time T_2 may lead to a continued development with the same four alternatives at Times T_3, T_4 and so on indicating a kind of cyclic process, but only the four alternatives as they arise initially are considered here.

The reading of a place name kanji, furthermore, is complicated by the existence of Chinese on and Japanese kun readings taken independently or combined together as well by the possibility of abbreviated cases such as toba 鳥羽 where tori is read as to. Additional difficulty in reading can be generated by the use of manyōgana (kanji chosen only for their phonetic value) or ateji which may be selected both for their phonetic value and for an auspicious connotation. Nevertheless, among the 55

characters, some of those with two or more readings can be traced historically to determine the original reading. For example, 垈 was originally nuta whereas nta is derived from it. Similarly, the characters 塔 , 梗 and 稗 were originally pronounced sako, hokuso, and hie.

3.1.2. Place Name Distribution and Dialect

Observe the following three characters which contain the rice radical: 糕 , 粭 , 糘 . The first is read shiina. The next two are read sukumo.

Shiina 糕 , a place name in Miyagi Prefecture, is said to be a variant of 粃 which means 'empty husk' (of a cereal) or 'immature ear' (of wheat). The character 糕 survives only in this particular place name.

A search for all place names with the pronunciation sukumo reveals thirteen as follows:[22]

1. 宿毛　2. 宿茂　3. 宿毛　4. 須雲川
5. 糘地　6. 糘地　7. 粭島　8. 九十九塚
9. 粃田　10. 粃田　11. 宿毛碆　12. 巣雲山
13. 宿毛湾

According to Nihon no Chimei, sukumo divides into su 岩 and kubo 窪 and means 'valley with steep

slopes.' The following names with the same pronunciation are also given:

須久保，須雲川，宿毛，須久毛，粭田

Nihon no Chimei also cites the example of sukumozuka スクモ塚 which referes to a legendary mound created by the piling up of momigara 'chaff.' The dots on the following map indicate the thirteen sukumo place names while the cross-hatching covers areas where chaff is referred to as sukumo rather than momigara.[23]

MAP

The fact that only thirteen places were named sukumo, despite the existence of many steep sloping valleys throughout Japan, may be attributable to the influence of those dialects in which sukumo means "chaff." The characters 粭 and 糠, for instance, appear within the cross-hatched sections on the map. Of the thirteen occurences, only Sukumoda 粭田 (in Fukushima Prefecture) is found outside the cross-hatched area. Quite possibly Sukumoda originally reflected the meaning 'valley with steep slopes,' but was later given the character 粭 either as an ateji or with reference to a reddish color or to rice held long in storage. This would have been a progression from Z(XY) to Z(XB) whereby a new meaning is given while the original pronunciation, sukumo in this case, remains unchanged.

3.2. Family Names:[24]

Certain place name kokuji also serve as family names in which case there may be a variety of readings in addition to the reading ascribed to the place name. The following characters, for example, are shared by both place names and family names:

垰 tao/tō, akutsu, kuwa, taka, 峅 kura, 岬 yuri, 埨 haba, 粭 sukumo, 裏 horo, isa, yan.

By contrast, those below are found only in family names:

宄 saiai, 卅 noki, 昭 saru, 槌 aso, 磵 hazama, 粃 kehai, 萃 ukikusa, 迫 haza, 鴟 shima, 鍔 kogama, 鍼 ono.

No contemporary Sino-Japanese dictionaries have entries for these characters. Of the two major Japanese surname dictionaries, only one of them contains any of the above and in that case merely two:[25]

裏 horo, and 垰 tao/tō.

Therefore contact must be made with individual families for further information about these names. One informant, for example, related the family name Kesagayama 畩ヶ山 to an actual mountain where two lovers had committed suicide while wearing the black surplice of a Buddhist monk. Such a surplice, known as kesa and normally written 袈裟, was evidently given the single character 畩 locally. If one includes kesa and the 17

characters above, there are about 350 characters used in family names that deserve further investigation as possible kokuji.

4. Methods of Creating Kokuji:

Once kanji had been introduced by Chinese residents in Japan during the late 4th century, there followed a period of comparatively straightforward learning and imitation. The meaning and form of a character was memorized with emphasis placed on faithful copying of the printed style that was characteristic of Chinese documents. By the late 8th century, however, a markedly cursive style was in evidence as seen for example in the Manyōgana Monjo (702) where the cursiveness of the kanji is rivaled only by that of the hiragana syllabary which arose during the next century. Both hiragana and katakana were put into use between the beginning and the middle of the 9th century. Publication of the Shinsen jikyō (898-901) suggests that kokuji, too, were in existence at least as early as the middle of the 9th century. Muromachi and Edo copies of the Setsuyōshū (1469-87)[26] show the status of a character either by leaving it unmarked, by designating it as a Japan-made character (waji 倭字), or by labeling it as a character appropriate only to informal writing (zokuji 俗字). Kokuji

left unmarked in the Setsuyōshū can be assumed to have become so well assimilated that 15th century compilers believed them to be of Chinese origin.

From a structural point of view, kokuji can be analyzed into components in the same manner as characters of Chinese origin. A character composed of a radical and a semantic component is classified as semantically composed. A radical with a phonetic component indicates phonetic composition. Cases also occur where both components have a phonetic value. Japanese phonetic composites differ from Chinese insofar as the phonetic component is not limited to Chinese on readings but may have Japanese kun readings as well. Examples in each category follow below:

1. Radical and Semantic Component

   木 tree + 山 mountain = 杣 soma 'timber forest'

   木 tree + 神 spirit = 榊 sakaki 'sacred Shinto tree'

2. Radical and Phonetic On Component

   魚 fish + 安 an ⎫ = 鮟鱇 ankō 'angler fish'
   魚 fish + 康 kō ⎭

3. Two Phonetic <u>On</u> Components

久 ku + 米 me = 粂 kume (proper name)

麻 ma + 呂 ro = 麿 maro (proper name)

4. Radical and Phonetic <u>Kun</u> Component

衤 clothing + 行 yuki = 裄 yuki 'sleeve length'

衤 clothing + 妻 tsuma = 褄 tsuma 'lower part of kimono'

5. Two Phonetic <u>Kun</u> Components

田 shi + 鳥 gi = 鴫 shigi 'snipe'

几 na + 止 gi = 凪 nagi 'calm'

The last two categories are the more Japanized of the five. In Category 4 the semantic aspect of the component has been deliberately set aside in favor of the <u>kun</u> reading. The character 妻 <u>tsuma</u> means 'wife.' The character 行 <u>yuki</u> means 'going.' They have been joined as components to the clothing radical for the purpose of triggering the correct oral response in the mind of the Japanese reader who has already become accustomed to the association of 妻 with <u>tsuma</u> and 行 with <u>yuki</u> in everyday usage. Therefore, on seeing the two <u>kokuji</u> 褄 and 裄 for the first time, the reader would most likely pronounce them <u>tsuma</u>

and yuki respectively. Category 5, however, produces the exact opposite effect in that the readings shigi and nagi would not be immediately apparent to the reader. In the case of 鴫, for example, the standard kun reading for each component, i.e. 田 and 鳥, is ta and tori respectively. It is likely that when the need to have a written character for shigi arose, the original creators decided on the simple combination of 'paddy field' and 'bird' as being the most convenient. This combination of components became popular but the readings shi and gi never became accepted for independent use apart from each other. Consequently, the reading shigi is possible only in this particular case. In any other combination the character 田 is read ta/da or den while the character 鳥 is read tori/dori or chō.

Kokuji belonging to Categories 3 and 5 have in common the fact that the words which they represent entered the written language originally as two separate characters. Before it was combined to form a kokuji, the proper name 粂 kume was written 久米. Prior to becoming a kokuji, the word for 'calm' 凪 nagi was written 風止. Consequently, the combining of 風 and 止 to form 凪 is based more on phonetics than on semantics. This distinction becomes clear on

examination of any of the remaining categories. Under Category 1, for example, 'timber forest' 杣 soma has never been found as a two-character word 木 山 . Instead two semantic components (tree and mountain) were combined to produce a new character and a new meaning. No new meaning, however, is produced by combining 風 止 to form 凪 or by combining 田 鳥 to form 鴫 . Certainly in its original form as an ateji the word shigi would be considered semantically influenced if the Japanese snipe tended to gather near rice paddies. Not being aware of any appropriate Chinese character for 'snipe,' early Japanese selected 田 鳥 on the basis of a simple natural observation. At the time of kokuji formation, however, the semantics of the ateji are already part of the past history. The creator of 鴫 is merely taking two kun components (each with a unique reading) and combining them without any alteration in meaning.

Structural analysis aside, the actual processes by which kokuji arose appear to have been both deliberate and accidental.

They may be summarized as follows:

1. Total composition based on the radical-component relationship as seen in the structural categories given above. The creator selects two components and

combines them. One of the components is placed in a position most suited to its nature as a radical. This position may be above, below, to the right, or to the left of the other component. The selection is made independently of any existing Chinese character.

mountain + up and down = 峠 tōge 'mountain ridge'

thread + un = 纏 un 'flambé'

Alternative placement of the radical can be seen in kume, maro, shigi, and nagi above.

2. Deletion of a component from an existing Chinese character and modification of the remaining component.

韵 yün ⟶ 匀 ⟶ 匂 nioi 'fragrance'

訓 hsün ⟶ 川 ⟶ 巛 kun (Japanese reading of a Chinese character)

3. Substitution of one component for another in an existing Chinese character.

麓 lu 麓 fumoto 'foot of a mountain'

鹿 shika in 麓 has been replaced by 下 because the latter simply and directly means 'bottom.' Simplification has been achieved through use of a

component which reflects the meaning of the original character.

4. Substitution and recombination based on existing Chinese character compounds.

十字路 shih-tzŭ-lu 辻 tsuji 'crossroad'

魚梁 yü-liang 簗 yana 'fishtrap'

The radical 辶 indicates 'road' and the component 十 represents itself, i.e., the cross shape. The bamboo radical in the second example highlights the material out of which the Japanese fishtrap was made.

5. Transcription due to a misreading of cursive style.[27]

俟 ssŭ → 俟 → 俟 → 俟 ↗ 俣 mata
↘ 俣 mata

As the original Chinese character was copied in varying degrees of cursive style, the resulting abstract form was subject to misreading when later copyists sought to transcribe it back into printed style. In the above example, copyists inadvertently created two <u>kokuji</u> because they did not recognize the original Chinese character as reflected by its cursive form. In the example below, the same lack of recognition led to the creation of one <u>kokuji</u> as

an accidental derivative of another kokuji.

枡 masu → 枡 → 枡 → 枡 → 枡

Similar examples found in handwritten copies of medieval dictionaries are as follows:

杉 sugi → 杉 → 杉 → 杉 → 杉 / 杉

鴾 toki → 鴾 → 鴾 → 鴾

糈 kumashine → 糈 → 糈 → 糈

5. Conclusion:

The influence of cursive style together with a tendency toward simplification seem to be at the root of kokuji creation in the past as well as today with the use of a new character limited initially to small groups within Japan. One finds, for instance, the occasional use of 姞 to mean 'elevator girl' by some people in Tokyo. Both faculty and students are familiar with the combination of Chinese radical and Roman letter in 庆方 as a substitute for 慶応 in Keio University.[28] Typewriters of the Japanese Navy had several special kanji such as 舠 'cutter,' 舠 'lunch,' and 軌 'truck,' each combination constisting of a katakana symbol and the 'ship' or 'car' radical.[29] Residents of Kagoshima will use the Chinese character 麑 as a contraction for 鹿児島 in raigei 来麑 'Welcome to

Kagoshima' reflectiong a local tendency to shorten words as well as one of the principles by which kokuji were formed.[30] These examples are all actively used in specific communities but not nationwide.

Nevertheless, the fact that certain kokuji are likely to remain in the linguistic life of the Japanese can be inferred from a careful scanning of the Ministry of Construction's Geographical Survey Institute maps (scale 1:50,000) of Japan. One sees that certain kokuji are not limited to isolated geographic names but proliferate in the names of schools, post offices, community centers, markets, train stations, civic housing and so on with a local area. Shoppers at a marketplace may know nothing of the origin of its name, but it stays in their daily language and in their memories. Consequently, just as the study of dialects is important in terms of the history of the national language as a whole, the study of kokuji has a bearing on the nation's cultural history.

At this stage of research there are already 27 place name kokuji which ought to be added to the JIS list, an addition which would bring the total JIS characters to 6,373. More characters are likely to be added as study continues through the following steps which represent the basic process of kokuji research:

unfamiliar character

reading known → 1. Consult modern Japanese dictionaries

reading unknown → 1. Consult modern Japanese dictionaries

2. Consult modern Sino-Japanese character dictionaries

3. Consult modern Chinese character dictionaries

4. Consult pre-modern Chinese character dictionaries

if still not found

5. Reexamine the context in which the unfamiliar character appears

possible proper noun? / possible common noun?

place name? / family name?

6. Consult gazetteers or Consult surname dictionaries

7. Examine maps or Research telephone directories

8. Contact local area to determine if character was recently created or Contact families who use the character in their name

9. Consult Japanese dictionaries from the 9th century to the present

10. Compile a list of Chinese characters similar to the unfamiliar character

11. Compare these characters as possible variants of the unfamiliar character (use dictionaries of variants)

12. Compare the characters in cursive style as possible calligraphic equivalents of the unfamiliar character (use manuals of calligraphic style)

The process is admittedly tedious, but each character that is finally identified as a kokuji becomes a candidate for inclusion in Sino-Japanese dictionaries. Moreover, it is only when the 12 steps above have been thoroughly followed, leading the researcher back into the classical language, that the original sources of kokuji can be discovered and recorded along with etymological data. Note that among proper noun kokuji those found in family names are the ones most cherished. Their use is mediated by linguistic and social traditions which are likely to carry them into the future.

NOTES

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[1]For further details on Jurchen, Khitan, and Hsi-Hsia scripts as well as hPhags-pa Hangul, Chu-nom, Moso, Lolo and others see Kōno (1968) Nishida (1966, 1967), and Nakano (1971).

[2]In modern Japanese the term 'kokuji' has been used in three different contexts. It may refer to (1) all types of syllabic and non-syllabic

traditional characters, i.e., hiragana, katakana, and kanji, (2) to the two sets of kana only, or (3) to kanji which originated in Japan. All of these are in varying degrees "national characters." In this paper, however, the term refers strictly to Japan-made kanji.

[3]Code of the Japanese Graphic Character Set for Information Interchange JIS C 6226 compiled by the Japanese Industrial Standards Committee and published by the Japanese Standards Association, Tokyo, 1978.

[4]The character list is organized by traditional radical order. Only one representative reading is given for each character.

[5]Although the 429 characters in the section entitled Shōgakuhen had been treated as kokuji, doubts were first raised by Wada Hidematsu concerning their authenticity as kokuji. Yamada Yoshio supported his opinion. While researching each of the 429, the present writer found that about one-third are recorded by Morohashi (1955-1960) as having been found in Chinese materials. Before a final judgment is made, however, further research must be done on Chinese materials dating from before the 9th century.

[6]For a treatment of kokuji which appear in writings from the mid-15th to the end of the 17th century, see Reiman (1983b).

[7]The definition of 'kokuji' is discussed by Reiman (1980).

[8]Tsuda (1879), p. 524.

[9]Kanda (1911), p. 274.

[10]Hori (1862), p. 836.

[11]Satsuma students (1869), p. 596.

[12]For 鱈 see Chung-kuo k'ê-hsüeh-yüan yü-yen (compiler) (1977), p. 1167. For 働 see Chung wen ta-tz'ŭ-tien pien-tsuan wei-yün-huei (compiler) (1962-1963), Vol. 3, p. 239. For 腺 see Shang-hai tz'ŭ-shu ch'u-pan-shê (compiler) 1979), p. 1600.

[13]For further details, see Reiman (1983a).

[14]Sources used to compile lists of unfamiliar characters are Kanai (1981), Jinmonsha (1982), and maps of the Japanese National Geographical Survey Institute.

[15]A character is indicated by a single entry in the prefecture where the majority of its occurrences are found. Whenever a character has only one occurrence in each of several prefectures, it is indicated in each of them.

[16]Volumes have been published for Kyōto City (#27), Kyōto-fuka (#26), and for the following prefectures: Akita (#5), Ehime (#39), Fukui (#18), Hiroshima (#35), Nagano (#20), Nara (#30), Saga (#42), and Yamaguchi (#36).

[17]Sources used are Nakada and Negami (1971); Nakada and Kobayashi (1973) (1979); Nakada and Kita (1976); and Nakada (1970) (1975) (1979).

[18]For T. Yamada's theory, see Yamada (1969).

[19]Nakada (1979), p. 16.

[20]See Nihon daiziten kankokai (1947-51) and T. Yamada and Tsukishima (1965).

[21]Yamaguchi (1974), p. 62.

[22]See Kanai (1981) Vol. 1, p. 326. Names #1, 2, 3, 4, 11, 12, and 13 consist of manyōgana. Name #8 is an ateji, a semantic adaptation, in this case based on the mispronunciation tsukumo 'one number less than 100.' Therefore, only the names #5, 6, 7, 9. and 10 require investigation. See also Kagami (1964), p. 51.

[23]Japanese dialects contain as many as 160 different words for 'chaff.' See Kokuritsu kokugo kenkyūjo (1966-1974), #. 171.

[24]Family names which include possible candidates for kokuji are being selected by this writer from Japanese telephone directories. This requires a page by page reading of all 208 volumes published to date. Almost 90% of the project is complete with letters of inquiry forwarded to families whose names are selected.

[25]See Ota (1963) and Dai nihon jinmei jisho kankō kai (1980).

[26]The 12 copies contained in Nakada (1970) (1974) (1975) (1979) and Nakada and Kobayashi (1973) (1979) have been examined by the present writer.

[27]For the variety of cursive styles see Takada (1970).

[28]Yomiuri shinbun shakaibu (1976) Vol. I, p. 84.

[29]Shibata (1978), p. 333.

[30]Yomiuri shinbun shakaibu (1976) Vol. II, p. 82.

SUBJECT ELLIPSIS AND TOPIC IN JAPANESE

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1. Introduction

Deletion of subjects, objects, and other elements of sentences occurs more frequently in Japanese than in English, where it is severely restricted to a small set of forms - auxiliary verbs, subjects, articles, and so on - occurring in sentence initial position in informal discourse.

(1)(a) (Is) Dad home yet?
(b) (I) went to Martha's place the other day.
(c) (The) market's closed Saturdays.

In Japanese, however, these and many other elements of a sentence are frequently missing; specifically, noun phrases such as subjects of finite verbs and objects of transitive verbs, structurally required in English, are regularly deleted in Japanese.

(2)(a) Hanako ga nyuuin site iru kara,
be hospitalized because
o-mimai ni ikanakute wa ikemasen.
visit go must

Hanako is in the hospital, so (I) must go visit her.

(b) Masao ga simasita
do past

Masao did (it).

Although it is not yet clear precisely when these elements may or may not be deleted, there is general agreement that whether deletion is possible depends at least in part on how unambiguously the element to be deleted may be understood from context.

Recoverability, however, appears not to be the sole criterion for ellipsis. Hinds (1978) notes that Japanese speakers do not delete everything from their utterances that could possibly be understood from context. Yet they do delete some elements with great regularity: Danwago no Jittai (Kokuritsu Kokugo Kenkyūjo 1955) reports the frequency of subject noun phrase ellipsis as ranging from 37-75%. What, then is deleted, when, and by whom?

Kuno (1975a) suggests that deletion processes are so heavily dependent upon discourse factors that they are not susceptible to explanation at the level of sentence grammar. Analysis of ellipsis phenomena

within the framework of the discourse has been done primarily by Hinds (1973, 1978, 1981), who has steadily worked toward identification of the segments of a discourse within which noun phrase ellipsis may occur and delineation of the linguistic circumstances under which it does.

Non-linguistic factors, if any, which contribute to or impede noun phrase ellipsis have been little studied. In a previous study of sociocultural influences on Japanese syntax, Shibamoto (1980), I reported that, in certain types of sentences, female speakers deleted subject noun phrases more than male speakers did, although no differences were found for the rates of ellipsis of other noun phrases (see Table I).

Table I.
Ellipsis of Noun Phrases by Grammatical Category, Sentence Type (adapted from Shibamoto 1980)

Noun Phrase	M	F
Subject		
Nominal predicate	58.6*	69.4
Adjectival predicate	32.7	51.6
Verbal predicate	65.2	65.0

Noun Phrase	M	F
Direct Object		
Nominal predicate	99.5	98.6
Adjectival predicate	99.1	98.1
Verbal predicate	67.2	66.2
Indirect Object		
Nominal predicate	--	--
Adjectival predicate	96.4	99.4
Verbal predicate	88.2	91.5
Instrumental		
Nominal predicate	--	98.9
Adjectival predicate	--	98.7
Verbal predicate	99.9	98.8
Allative/Ablative		
Nominal predicate	--	--
Adjectival predicate	--	--
Verbal predicate	96.9	94.3

*expressed in percentages

The differences for sentences with nominal and adjectival predicates are quite striking and need no further comment; the figures for sentences with verbal predicates less so. A further breakdown of verbal predicates, however, points up variation in deletion rates of subjects across speaker sex which is not found for other categories of noun

phrases.[1] In Table II, the category verbal predicate is subdivided into one-, two-, and three-place predicates.

Table II.
Ellipsis of Subject and Object Noun Phrases* by Sentence Type (adapted from Shibamoto (1980)

	Subject		Object	
Predicate Type	M	F	M	F
Copula	59.6**	73.2	99.5	98.6
Adjective	33.6	58.8	99.1	98.1
Verb				
One-place	52.7	64.5	--	--
Two-place	67.5	70.1	36.4	45.4
Three-place	74.9	72.6	42.2	42.5

*only those noun phrases occurring preverbally are included

**expressed in percentages

There are, potentially, a number of ways to account for these differences; they are not mutually exclusive and it would seem quite plausible to assume that all come into play to one degree or another as a speaker produces utterances. In my

earlier study, I was concerned about two aspects of subject noun phrases and their vulnerability to deletion. The first was the relationship between subject ellipsis and paragraph topic. It was possible to make some preliminary estimates of whether speakers choose to delete nominals which refer to the paragraph topic or to an integral part of the topic differentially, or whether, indeed, they exhibit patterned differences in their interpretations of what constituted a legitimate part of a given paragraph topic. Specifically, I was interested in determining whether the female speaker assumes a greater mutual understanding between herself and her addressee of the component parts of a given paragraph topic than would her male counterpart. Of course, female speakers may just talk at greater length about the same topic, thus producing more noun phrases which have anaphoric referents and are thus more readily available for ellipsis. Unfortunately, the data in Shibamoto (1980) were not systematically divided into paragraphs, and no conclusive statements could be made on this point.[2] Clarification of the contribution of topic selection (or, given sets of data of equal length from male and female speakers, paragraph length) will be a focus of the present study.

A second concern in the original study was whether, within paragraph boundaries, female speakers choose different types of nouns as subjects. Were they systematically to select subject nouns which are closely tied to the topic of the paragraph, for example, they would, correctly, be interpreted by the speaker as easily understandable to the listener, hence more likely to be ellipted. Again, Shibamoto (1980) was unable to provide conclusive evidence on this point.

The original study did examine the specific nominals deleted, by reconstructing subject nominals for a set of speakers and comparing them, alone and in relation to the types of nominals which are retained as overt subjects by the same speakers. It was found that male speakers deleted proportionately far more first- or second-person deictic references than did female speakers; 51.0% of male speakers' deletions were deictic references, whereas only 34.7% of female speakers' deletions fell into that category.

In fact, male speakers produced overall more sentences with first- and second-person deictic forms as subjects; lumping the overt and reconstructed forms together, 40.7% of male speakers' utterances had such subjects, as compared with only 27.3% of the female speakers' utterances.

Female speakers, on the other hand, restricted themselves to subject nominals which refer to the paragraph topic or some subpart thereof over 50% of the time (52.8%). And, not surprisingly, they delete more of them than do men.

These findings suggest that it is differences in the nature of the noun phrases initially present as subjects in the utterances of male and female speakers which account for the observed differences in their subsequent rates of deletion rather than a simple variable rate of application of the NP deletion rule. Further clarification of the discourse factors shaping a male or female speaker's individual utterances, however, remains necessary.

2. The Data

In the present study, similar interview techniques were used to those reported in Shibamoto (1980). One subject was approached, and, if he or she agreed to be interviewed, was directed to invite two close friends who would also be willing to be interviewed at the same time. The purpose in conducting interviews with three subjects at once was to reduce the level of formality inherent both in an interview situation and in the circumstance of talking with someone (the interviewer) for the first time. It was expected that in the course of the

interview the subjects would begin to talk to each other as well as to the investigator, and that this would allow collection of the 'everyday' speech which, as the least marked[3] speech, is our primary interest (Sankoff 1974). In order further to encourage a relaxed atmosphere, the interviews were conducted in settings familiar to the interviewees: the home of one for the female speakers, a small company lounge used regularly for eating lunch for the male speaker group. The length of the interviews, too, was left relatively open, but was minimally set at 1 1/2 hours, during which time the interviewees were encouraged to talk among themselves about topics which were of mutual interest and to overcome, to some degree, the effects of having both a foreign observer and a tape recorder present.

Since the focus of the study was to isolate sex-related variation, attempts were made to hold other potentially significant sociocultural parameters as constant as possible. Interviewees were speakers of standard Japanese. The three female interviewees were, moreover, middle-class[4], full-time housewives between the ages of 30-39, residing in suburban Tokyo. Male interviewees were chosen, in like fashion, to represent the most "typical," or perhaps stereotypical, subject:

middle class, suburban Tokyo white collar workers, also between the ages of 30-39. Studies of such speakers are intended only to provide some preliminary notions of the differences in the speech of the average Japanese man and woman; how many of such differences are irreducibly attributable to the sex of the speaker as opposed to being associated with their sex-typed roles remains an open question that can only be addressed by systematic investigations into the linguistic behavior of the atypical speaker as well. An interest in locating some specific variables upon which these broader studies may focus, thus, underlies the initial interest in the two groups of speakers of this study, as they are taken to represent the potentially most differentiated speech, or the speech styles where maximal linguistic sex-differentiation are seen as best coinciding with maximally sex-differentiated social roles.

The interviews were taped on a Sony TC-800A recorder equipped with a Sony ECM-955 microphone, and transcriptions made of each. The restricted space available for the female subjects' interviews, in particular, rendered attempts to tape each speaker onto a separate track impossible. Speakers, moreover, ate and drank tea or coffee while talking; there were occasional interruptions by children or

neighbors, in the women's interviews, and by coworkers, in the men's. Given these conditions, it is inevitable that some material was undecipherable and those segments were noted in the transcripts but ignored thereafter.

The remaining material was divided into sentences, and a list of the first 150 sentence tokens for each speaker prepared. The first 50 tokens from each transcript, which represent the most formal speech for each interviewee (Shibamoto 1980), were dropped and analyses performed on the 50th-150th sentence token produced by each interviewee. All ellipted subject nominals were reconstructed at this point, before the sentences were lifted out of their positions in the discourse.

3. Results

Rates of ellipsis of subject noun phrases in this study are shown in Table III. It can be seen that, with the exception of 2-place verbal predicates, where men deleted subject NPs 3.6% more often than did women, women consistently ellipted subjects more, 12.0% more frequently across all predicate types. This is in line with the results of Shibamoto (1980); in fact, women in this study showed an even stronger tendency to delete subject NPs.

Table III.
Ellipsis of Subject Noun Phrases by
Sentence Type, Sex

Predicate Type	Sex of Speaker F	M
Adjective	71.9*	62.1
Copula	65.7	55.4
1-place verb	69.2	39.3
Predicate Type	**Sex of Speaker F**	**M**
2-place verb	80.0	83.6
3-place verb	88.2	75.0
Total	73.3	61.3

*expressed in percentages

Were the same sorts of subjects deleted? In the earlier study, all tokens with ellipted subjects were assigned to one of Martin's subjectless sentence types according to the nature of the reconstructed subject (Martin 1975). These types may be described essentially as follows.

(I) In the first type a specific subject is so easy to identify that it was probably "intended" by the speaker and will be "understood" by the hearer even though it is not explicitly included in the message... We

can treat this as OPTIONAL ELLIPSIS of the subject.... (1975:183).

(Ame ga) yanda ka.
rain stopped

Has (the rain) stopped?

(Kare wa) sinda ka.
He died

Is (he) dead?

(II) In the second type, some sort of deictic reference is easily understood as the subject, even though the explicit verbalization of the reference is not easy to formulate (1975:184).

Kaerimasu.
Go home

(I) am going home.

Here, the subject is easily understood as first-person, but whether it would be overtly stated as watakusi, watasi, watasitati, boku or bokura is open to question.

(III) The third type of subjectless sentence involves expressions of time, weather, and other general conditions for which an arbitrary subject could be assumed but it

would not be normal to use any specific noun (1975:184).

Samui.
Cold

(It)'s cold.

Osoku natta.
late became

(It) is getting late.

Sinbun ni yoru to...
newspaper according

According to the newspaper...

(IV) The fourth type of subjectless sentence involves a generalized animate subject 'one, people, they, anybody' or the like... (1975:184).

Ningen to umaretara, hito no tame ni
human be born-if people sake

tukusanakereba naranai.
do all you can must

If you are born a human being you must do all you can for the sake of others.

In Shibamoto (1980), I found that 13.0% more of female speakers' reconstructed subject NPs were Category 1 subject nominals and 3.7% more were Category 3 nominals than was the case for the

reconstructed NPs of male speakers. In the protocols for male speakers, on the other hand, 16.5% more Category 2 deictic nominals were found. Rates of deletion of generalized animate referent nominals (Category 4) were virtually identical. In the present study, these results are essentially replicated; the largest differences are found in the proportions of optionally elliptable (Cat. 1) and deictic (Cat. 1) nominals. See Table IV. The tendency for male speakers both to produce (Table V) and to delete more deictic reference nominals is slightly less pronounced in this study; the difference in proportions of deleted NPs identified as Category 1 optionally elliptable forms is, however, even greater than in the earlier study.

Table IV.

Deleted Subject Nominals by Noun Category

Noun Category	F	M
1	51.7*	31.6
2	24.3	41.5
Noun Category	F	M
3	5.9	8.2
4	17.7	18.7

* expressed as a percentage of total number of reconstructed subject nouns.

Table V.
Subject Nominals (Overt and Reconstructed)
by Noun Category

Noun Category	F	M
1	58.3*	49.4
2	21.6	29.5
3	4.7	5.7
4	15.5	15.3

* expressed as a percentage of 300 tokens

The greater frequency of Category 1 subject deletion among female speakers may indicate that they interpret the notion "easy to identify from context" more broadly than do male speakers. This may be because they address simpler topics than do their male counterparts, although it is unclear how a meaningful measure of simplicity might be applied, or it may be that they talk about the same topic longer, producing more utterances for each topic than male speakers do. Or it may be that, within topic units, female speakers more systematically choose subjects which are closely tied to the topic and encode other information in the remaining NP positions.

Hinds (1980) outlines the following ordered conditions for NP ellipsis in Japanese.

(A) The referent of an ellipted topic noun phrase is assumed to be the lowest topic or subtopic on the topic hierarchy established in conversational interaction.

(B) The ellipted "subject"... of a declarative sentence is the speaker; the "subject" of an interrogative or imperative sentence is the addressee (Hinds 1980:22).

In noting exceptions to these statements, Hinds suggests the following tentative formulation of a third possible rule.

(C) If there is a sufficient degree of involvement with a particular referent on the part of the participants in a conversation, or if the subject is sufficiently salient or elicits a sufficient degree of empathy and this can be held to be assigned to all participants in the conversation, nouns other than those identified in Rules 1 and 2 may be ellipted.

Considerably more work is needed to clarify the terms of this third statement, but it is primarily the first two which will concern us here, so we may safely postpone consideration of this more problematic aspect of NP ellipsis for future work.

If it is the case, as Hinds suggests, that the primary motivating force in nominal ellipsis is identification with topic, then clearly it will be of interest to examine the ellipsis of subject NPs

with respect to their position within a discourse. In order to verify that Hinds' conditions hold for the ellipted NPs in this study, however, the whole discourse must first be segmented into subunits which relate to single topics.

"The central problem of discourse analysis is to discover the connections between utterances" (Labov and Fanshel 1977). It appears clear that between the sentence and the discourse, there are additional layers of organization, the identification of which is crucial to our understanding of the connections between their component utterances, or sentences. The definition and description of these subunits of a discourse have, accordingly, received much attention in the literature (Hinds 1977, 1979; Chafe 1979; Longacre 1968, 1979).

In general, we may take a discourse to be divided into paragraphs, defined in Hinds (1979) as "a unit of speech or writing that maintains a uniform orientation." The content of the paragraph will, then, center about perspectives on the topic, which is to be thought of, not simply as an object, individual, or concept, but instead as a scenario in which actors, props, setting, events, causes, and results are simultaneously registered as an integrated whole in the topic registry or story line

for the discourse (Hinds 1981). Breaks in the thematic unity of a paragraph are reflected in the structural features of a discourse (Longacre 1979); of specific interest to the present investigation, they form paragraph boundaries, which in turn block noun phrase ellipsis.

Paragraphs themselves are not composed directly of sequences of sentences. Rather, they consist of segments, which are sets of sentences which also exhibit a unified orientation, this time constrained by paragraph topic. In conversation, segments form a series of perspectives on the paragraph topic. Shift of focus from the actors in a scenario to the events that take place, for example, would divide a single paragraph into two segments. Structurally, segment boundaries may also inhibit nominal ellipsis, although this blocking function is much weaker than in the case of paragraph boundaries.

If discourses may, in fact, be broken down into paragraphs, which are characterized by uniform orientation around a single topic, then all that will need to be done in order to determine whether relation to topic influences subject noun phrase deletion differentially across sex of speaker will be to match ellipted nominals with topics/subtopics.[5] The sequences of actions, etc. which comprise the topic scripts have been held to

"rely on generalized knowledge structures which are shared by all normal speakers of a language" (Hinds 1978:327); we are here concerned to see whether that is the case, or whether speakers may exhibit systematic variability in their interpretations of a particular referent nominal as falling within the limits of the shared generalized knowledge structure, or script.

The difficulty with this program lies in the fact that no techniques, or even principled guidelines, for segmenting a discourse into its component paragraphs is available. It is claimed that discourse texts may be so segmented. How we may do so is left unspecified. If we are to be able to make quantitative statements about ellipsis or any other phenomena across multiple discourses, we must delineate segmentation principles which are sufficiently clear that we may have some confidence in achieving intersubjective reliability. To do so is, of course, far beyond the scope of the present paper, but to provide a check against possible bias or error in what follows, I will outline the way in which paragraph units were identified and list these along with the subtopic units.

Subtopical units were identified first in a very simple fashion. The transcripts were read over while listening to the tapes and wherever there

appeared to be shift in focus or a flow from emphasis on one aspect of a topic to another (Chafe 1979), a line was drawn. Pauses, change of tone of voice, shift in posture (where detectable by noises such as chairs moving, etc.) were used as secondary sources of support for these cuts. Subtopical units were subsequently grouped into larger units, hereafter identified as the paragraphs of the discourses in question, independenly of the transcripts. Tables VI and VII below are lists of the topics with subtopical divisions.

Table VI.

Paragraph Topics, Female Speakers

1. Mechanics of starting the interview
2. Explanation of interview
   a. Taping
   b. Length
   c. Topic
3. Definition of anthropology
4. Juu (housing, living environment)
5. Children's sleeping arrangements
6. Living space
7. Moving in America and Japan
   a. House changes
   b. Neighborhood relation
   c. House financing
8. Living space in urban/rural areas
   a. House construction practices
   b. Tokyo vs. everywhere else
   c. Interviewer reaction to small houses

9. Interviewer's length of residence in Japan
   a. Time
   b. Means
10. Husband's return time*
11. Wife's meal time*
12. Husband's departure time*
13. Late return and job type
14. Unexpected early return of husband
15. Going out as a couple
   a. Do or don't
   b. Babysitters
16. Japanese men as busy
17. Japanese women as not busy
18. Appreciation of housewives
19. Tukai

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*Although this may, at first glance, appear to be a potential subtopical unit of paragraph 10, the cuts were justified by pauses, followed by introduction of these topics as new, by the interviewer in the cases of 11 and 13.

Table VII.

Paragaph Topics, Male Speakers

1. Birthday parties
2. Starting the interview
3. Children of interview participants
   a. Interviewees interaction with
   b. Children's sex
   c. Number of children
4. Sex differences in children
   a. Relation to child-rearing
   b. Children's inherent natures
5. Dookyo (living with an older generation)
   a. Dookyo
   b. Financial pressures toward
   c. Giving aid to adult children

6. Marriage in Japan, attitudes toward
   a. Traditional attitudes
   b. Interviewer reaction
7. Relations between the sexes in Japan
   a. Discrimination
   b. Party behavior - social interaction
   c. Friendship between the sexes
8. Acquisition of marriage partner
   a. Present methods
   b. Traditional methods
9. Merits of syuudan seikatu
10. Introduction of third interviewee
11. Marriage partner selection
12. Interview description
13. Interviewer
    a. Identity
    b. Occupation
    c. Research theme
    d. Linguistics and anthropology
14. Standard Japanese
15. Dialects
    a. Anecdotes
    b. Mutual intelligibility
    c. Anecdotes
    d. Interviewer's exposure to dialects
    e. Sex differences in dialects
    f. Emotional response to dialects
16. Interviewer fluency
    a. Length of residence
    b. Fluency
    c. Study
17. Language learning
    a. Language styles
    b. Environment for learning
    c. Age of learning
    d. Adults second language unnatural
    e. How to assure second language acquisition for children
18. Korea as a gakureki syakai
19. Children's futures

20. Married women and careers
    a. In general
    b. Traditional Japanese attitudes
    c. Relative ability of self and wife
21. Women with children

It is of interest to note that, although the two interviews, which were of equal length, broke down into approximately equal numbers of segments, the internal structure of the paragraphs seems somewhat more complex in the male speakers' discourse. This may be simply an artifact of these interviews or a segmenting bias; it may also be that the topics chosen by male speakers are inherently more complex, and thus naturally have more complex structures. Only further research over more discourses will be able to make that determination. Here we will match subject NPs with the topics/subtopics as listed.

A simple count of the subjects related to paragraph topic shows that, indeed, female speakers do, overall, produce more subjects related to paragraph topic: 62.7% of the tokens produced by female speakers had such subjects as opposed to 49.7% of the tokens produced in the male subjects' interview. This alone would seem to account for the observed difference in ellipsis; a look at the same subject-paragraph topic match for the reconstructed

ellipted subjects, however, indicates that some other factors may be involved.

Table VIII.
Percentages of Subject NPs Related to
Current Paragraph Topic

Subject Noun	Female Speakers	Male Speakers
Overt	63.8	57.8
Ellipted	64.0	45.1

Here too, we see that 64% of ellipted subjects produced by females are related to the current paragraph topic, whereas only 45.1% of the male speakers' ellipted subjects are so related. What else are men ellipting?

Table IX.
Percentages of Evaluative and iu Forms
Among Ellipted Subject NPs

Noun Type	Female Speakers	Male Speakers
iu	23.0	16.4
evaluative	33.0	19.0
Total	56.0	35.4

Table IX indicates that men tend to produce, and to ellipt, greater numbers of forms comprising parts of sentences which are outside the discourse. The first are those associated with the verb iu, used in the sense of 'to call' rather than 'to say.' These are found in relatively high proportions in the speech of both men and women. They occur when the speaker is a) searching for the correct word to use and b) when he/she appears unsure that what he/she has just said is actually what was intended. The effect of the form is to lift the whole utterance out of the ongoing discourse and to question it metalinguistically for appropriateness. As questions, the subjects are taken to be the address 'you,' but might also be more broadly interpreted as the generalized 'one.'

(3)(a) Ironna tokoro, maa, tukiai te iimasu
various place well call it

ka, ne.

Various places, well, do you call it 'tukiai'?

(b) Amari nan te iu ka, hidoi kara...
too what call awful because

It's so, what do you call it, awful, so...

The second set of forms are what I have termed evaluative. In these, the speakers give their reactions to a topic, what they think or feel about it.

(4)(a) Boku wa tomobataraki te iu no yameru
I TOP work-together call stop

beki da to omotteru n desu.
should think

I think that (people) should stop both husband and wife working outside the home. (M2)

(b) Sono hanasi no sikata ga tigau to
that talk 's way different

omou n desu kedo.
think but

I think that the way (they) talk is different. (M3)

These are used much more by male speakers than by female speakers and they too, neatly, have exclusively deictic nominal subjects (first-person, in this case), thus providing an explanation for the larger proportion of Category 2 subject deletion among male speakers.

4. Discussion

We see then, that the present study supports the findings of Shibamoto (1980) that female

speakers of Japanese ellipt subject nominals with higher frequency than do their male counterparts. We also see that the sorts of nominals ellipted are the same as well: female speakers tend to ellipt nominals which are easily understood by both speaker and hearer (Cat. 1), male speakers deictic forms (Cat. 2). Having examined the ellipted form systematically in relation to paragraph topic, we are now however, in a position to say that the female speakers' ellipted nominals are easily ellipted precisely because they are, in greater numbers than in the case of men's nominals, topic-related. Moreover, the deictic forms produced in correspondingly large numbers by men proved not, for the most part, to relate to the paragraph topic, which they might have done, thereby reducing to a subset of Category 1 nominals. If we assume with Hinds that paragraph topic-related subjects are the easiest to ellipt and that anything else is harder, we can be confident that we have found the cause of the systematic tendency of women to delete more subjects. Women, when they select a topic, tend to orient their utterances toward it rather uniformly via choice of subject.

Men's paragraph construction, on the other hand, appears to have two levels, the first oriented toward the topic, the second toward their own

metalinguistic evaluation of themselves as participants in discussion of the topic. It is this second orientation that produces high numbers of utterances with first- and second-person deictic forms, which are deletable, under Hinds' Rule 2, since both speaker and addressee are in the permanent discourse registry. They are held not, however, to be as deletable as nominals related to the topic registered as being under immediate discussion.

Thus, we may satisfy ourselves that we have located the source of the original variable rate of NP deletion. In doing so, however, we have raised a number of additional issues.

First, it is clear that sentences are affected by the organization and structure of the discourse in which they occur; it is, thus, impossible to construct a sentence grammar in ignorance of the ways in which it will relate to a grammar of discourse. And discourse structure is at present very little understood. One of the most pressing needs is to develop the means with which to identify units intermediate between the discourse and the sentence. Suggestions have been made that speakers can segment discourses into such units, called paragraphs by Hinds, which are oriented around single unified topics. There may be additional

structure at the subparagraph level. This appears unproblematic; just how speakers conduct this segmentation, enumeration of the criteria they use, however, is not. More studies where systematic attempts are made by numbers of speakers to segment whole discourses into paragraphs are needed to clarify this process.

Second, it is unclear from this study precisely why men should adopt a dual orientation toward conversation, if they do in other informal settings, if women have access to this style under other conditions, or what the effect on listeners might be. Intuitively, it seems plausible that a metalinguistic orientation be associated with speaker distance from the conversation. Insofar as distance is associated with formality, we are led to hypothesize that the most engaged, informal level of male speech may be as yet untapped. This is, of course, highly speculative, but it would be quite easy to test the hypothesis that dual paragraph structure is associated with formality (for either men or women) by collecting samples from a broader range of situations than was possible in this study.

Finally, we must address the issue of markedness, and what that may involve for the Japanese speaker. If we are interested in the ordinary, everyday speech of the members of a

community, in this case a middle-class community of standard Japanese speakers, we must identify just which level we intend to refer to as everyday speech; excessive drift in the direction of informality would seem to yield forms just as marked in some senses as would a like drift in the direction of formality.

(5)(a) Taroo-tyan no koto kirai! Daikkirai yoon

I hate Taro I hate (him)!

(b) Oraa, yopparatten dakedo, so(n) de mo
I drunk but still too

yaruu, zee.
do

I'm drunk but, even so, I'll do it.

In order to be able to select the appropriate level for analysis, it will be necessary to strike a balance between the notions of linguistic markedness and sociolinguistic markedness. This can be done only after a better understanding of the sociolinguistic variation within standard Japanese is achieved; it is hoped that this paper will be a small contribution toward that end.

NOTES

[1]Except for direct object ellipsis in two-place predicates, the investigation of which will be a focus of future study.

[2]Repeated passes through the transcripts used in the 1980 study did, however, permit tentative subdivision into paragraphs. Although the tentative nature of the identifications of paragraph boundaries must be stressed, my conclusions at the time were that paragraph topic selection [average number of topics = 12(M), 16(F)] alone was inadequate to account for the observed differences in subject ellipsis.

[3]Although this characterization raises the question, for Japanese at least, just what markedness entails and how one might weigh different sorts of markedness. It is often stated, for example, that informal speech exhibits male and female speech forms which are neutralized at a more formal level. It is at least conceivable that the informal level of speech is marked in relation to certain sociocultural features such as speaker, sex, age, etc., but that formal speech is equally marked for others such as topic or setting.

[4]The term middle-class was defined by the following criteria for this study: (a) twelve or more years of education, (b) annual household income of 2-10 million yen, (c) white collar worker head of household.

[5]Schank and Abelson (1977) define a script as "a structure that describes appropriate sequences in a particular context."

VARIATION AND CHANGE IN JAPANESE HONORIFIC FORMS

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1. Introduction.

Honorific language is composed of lexical or syntactic forms which denotatively contain the same meaning as other forms, except for an added component of politeness which functions as an index of asymmetrical relationships. These politeness forms can signal respect toward the referent, addressee, and/or bystander, depending on the language.

The nature of respect which is conveyed by honorifics is not easy to characterize. While honorifics are primarily a public symbol of respect, they do not necessarily indicate a "real attitude" of respect. Respect is often based on social distance, a concept which involves the dimensions of solidarity and status (Brown 1965: 11-78). The degree of solidarity and relative status of the

speaker, hearer, and bystander determine who shows respect to whom. This behavior is not only limited to verbal expression, but also includes non-verbal symbols such as the Japanese custom of bowing.

All languages have the means to express politeness, both verbally and non-verbally. Some languages use grammatical structures that connote politeness implicitly. For example, a request in English such as "Would you mind opening the window?" is more polite than the direct order "Open the window." Rewording the command as a question is less direct and consequently more polite. Other languages have lexical and/or syntactic structures which explicitly encode politeness (i.e., honorifics). Such a language is Japanese, in which the choice of different lexical items or syntactic structures can signal respect to the referent or addressee.

This article attempts to account for variation in Japanese honorific forms. It will include observation of the various kinds of variability that exist within the language, as well as a brief examination of the reasons for this variability and how it may be related to language change.

2. Terminology.

Among traditional Japanese grammarians, keigo (honorifics) subsumes sonkeigo (actor or respect forms), kenzyoo (non-actor or humble forms), teineigo (addressee or politeness forms), and bikago (beautification forms). These will hereafter be referred to as actor, non-actor, addressee, and beautification forms respectively, since this choice of terminology is most appropriate for a cross-linguistic study.[1] Examples of the four types (honorific markers capitalized) are:

(1) Actor

sensei-wa watakusi-o Osasoi NI NATta.
teacher-Topic I-Object invited.

The teacher invited me.

(2) Non-actor

watakusi-ga sensei-o Osasoi SITA
I-Subject teacher-Object invited

I invited the teacher.

(3) Addressee

watakusi-ga sensei-o osasoi siMASIta
I-Subject teacher-Object invited

I invited the teacher.

(4) Beautification

Ohiru ni Osake-o nomimasyoo-ka
noon at rice wine-Object drink-Question

Shall we drink rice wine at noon?

In Sentence (1) the teacher is the actor and is shown respect with the O-(verb) NI NAT- honorific form. When the teacher is in the object position, however, (Sentence 2), then a non-actor form must be used: O-(verb) SI-. Sentence (3) is addressed to a socially superior person so it contains both the non-actor honorific to show respect to the teacher referred to as well as showing respect to the addressee (-MASI-). Sentence (4) contains the beautification form O- attached to 'noon' and 'rice wine.' These are polite forms whose occurrence depend more on the speaker's presentation of self than on the person referred to or addressed.

Honorifics can be generated as a result of the person referred to (reference honorifics), the person addressed (addressee honorifics), or by the bystanders (bystander honorifics) (Comrie 1976a). Actor and non-actor forms can be classified as reference honorifics. Bikago, or beautification, does not perfectly fit any of these categories, although it appears to be more closely associated with addressee and bystander honorifics than with reference honorifics. It is treated here as a subtype of addressee honorifics.

One way to distinguish beautification from the other three types is to consider Goffman's (1956) distinction between deference and demeanor (see also

Neustupny 1978). Deference refers to treating others with the proper ritual care, and demeanor refers to the presentation of self to others. Reference, addressee, and bystander honorifics involve giving deference or respect to others who are at a greater social distance. Beautification forms, on the other hand, are an attempt to give a good impression to everyone and are part of the person's demeanor or their presentation of self to others. Beautification forms differ from other addressee honorifics in that the social position of the addressee does not seem to necessarily affect their usage in the same way it does other addressee honorifics. They also appear to be used more extensively by some persons.

The distinction between beautification forms and other honorifics is not always clearcut. There is a component of demeanor present in addressee and reference honorifics, as well as a component of deference in beautification honorifics. An appropriate presentation of self requires the use of the proper respect forms for others. And beautification forms may also provide a measure of deference to the person addressed. However, this deference is given more equally to everyone whether to the addressee or bystanders.

3. Methodology

Data on Japanese honorifics was gathered from consultants directly and through the use of a questionnaire. This was supplemented by the author's own observations while living in Japan between 1966 and 1975.

A sample of four hundred seventy-six Japanese verbs (the first verb on each page of the NHK Yoji/Yogo dictionary, but omitting suru verbs) was presented to five consultants who were asked to determine whether the following honorific equivalents existed for each verb: o-V ni naru, o-V suru, o-V da, V-(r)areru, o-V asobasu, o-V moosiageru, and o-V itasu. In each case the desu/masu verb ending was also included (e.g., itasu/itasimasu). The consultants were then asked to circle the number of the verbs that they considered to be commonly used. Several re-tests were also devised to determine the acceptability of certain honorific constructions on a written list and in spoken discourse.

A sample of two hundred fifty nouns was also collected from every other page of the NHK dictionary. Three consultants were asked to attach the honorific prefixes o- and go- where possible to the nouns. Fifty-eight nouns, all of which the

consultants agreed were more commonly used, were identified.

4. Parts of Speech.

4.1. Terms of Address and Reference

The honorific system in Japanese affects how persons are named in both direct address and in reference. There are two groups of suffixes which can be attached to first name (FN), family name (LN), or kinship terms (KT). Group I suffixes (san, sama, tyan, and kun) cannot ordinarily stand alone, but must be attached to another term. Group II suffixes (e.g., sensei-professional person, syatyoo-company president, butyoo-company section chief, kyoozyu-professor, etc.) can stand alone as a term of address or a term of reference. Group II terms tend to be used in more restricted environments, whereas the variation in usage for Group I terms is greater. Group II terms can be attached only to LN. Most of the terms in Group II could be described as chosen on the basis of achieved status. Some usages of FN, LN, and KT with and without suffixes are examined below. These examples are approximations based on the intuitions of several consultants.

FN with no suffix is used in the family to junior members by father, mother, or older sibling.

Father is most likely to use this form, mother slightly less likely, and older siblings are least likely to employ it for a younger sibling. It is slightly more likely to be used for a female child than a male child. A husband may use the term for his wife, but she is less likely to reciprocate (Wenger 1971). This form may also be used by parents in reference to their own child (when name is used) in speaking to someone outside the family.

FN + tyan is a diminutive that is often used for a child. The difference between FN tyan and FN san is that tyan indicates "cuteness." Both male and female babies are generally called FN tyan, but after several years kun is often used for boys.

FN + kun is used for young boys through elementary school, and then changes to LN + kun. FN + kun is never used for girls except to tease a "tomboy."

FN + san can be used for a child of either sex, and is sometimes also used for adult women by close friends; but it is rarely used for men.

LN with no suffix occurs between persons who are very close. One consultant reported her sixty year-old father uses LN in addressing a man who was a college classmate and lived in the same dormitory. It is employed less frequently or almost

never between women. Male college students sometimes use it. A criminal is referred to and addressed as LN, with no respect marker. LN is used to refer to oneself or a member of one's own group (e.g., a person from the same company) to persons outside the group.

LN + kun is a continuation of FN + kun for male children. This form is always used by an equal or superior. Girls working with men in a company or school may sometimes be addressed with LN + kun.

LN + san is the most widely occurring respect term, and would appear to be the unmarked form. All other forms indicate some added component of meaning.

LN + sama occurs infrequently in spoken Japanese. It is a more extreme honorific that one might hear on the public address system in a department store, e.g., "LN, FN, + sama, Please come to the information desk."

Group II terms are generally used independently within a restricted environment when reference is clearly understood. Thus, in a private hospital operated by a single doctor, sensei in that context usually refers to that doctor. Family name and company name, etc., may be used to identify the person referred to by the second group terms when

necessary. FN would almost never appear without LN in this context.

KT take only Group I suffixes. All four siffixes can be attached to KT. Otoosan and okaasan are used frequently for father and mother. Often tyan is employed rather than san in younger children's usage until they are older. But there are exceptions. One consultant indicated that in his parental family tyan has always been used by all the adult children in speaking to their parents and by parents speaking to their children. In another family the informant always addressed older brother, sister, parents, and grandparents with the suffix sama which is an extreme honorific.

In a survey of usage of KT by different ages in Hokkaido (Wenger 1971) it was found that female children are frequently addressed by name or diminutive with or without tyan in the vast majority of cases. Some fathers and mothers also used oneetyan, older sister. Among male children usage is similar, except that name without suffix is more common and the term boku is also used.

These terms of address and reference are not necessarily an exhaustive enumeration. Actually, there is a great deal of variation in usage, and certain social factors can be correlated with particular usages. For example, a study of the use

of sensei and san among a small group of teachers showed variation that depended on relative status within the group (Wenger 1976). Terms of address and reference used among nine female teachers were observed for one month. Sensei, the more respect laden term, was used twenty-eight times and san eight times in that month. The most capable teacher (recognized as such by all other teachers) was referred to eight times as LN sensei but never as LN san. This contrasted with two younger and more recently employed teachers who were addressed by other teachers as LN sensei four times and as LN san six times.

4.2. Pronouns

It has been argued that the Japanese language does not contain overt pronouns of the same type as those which occur in languages such as English (Kuroda 1965, Hinds 1973, and Kuno 1973). One reason for this claim is that in Japanese discourse, a zero form appears where a pronoun would occur in an equivalent English exchange. The following transcription from a telephone conversation between two male Japanese university students illustrates this absence of pronouns:

(5)(a) ima doko ni irun da?
now where are

Where are (you) now?

(b) aa ima, ima tyotto tomodati no uti ni iru no.
now just friend's house in am

Now? Now (I) am just at (my) friend's house.

In Sentence(5a) a zero form is equal to the English pronoun 'you'. In Sentence (5b) the English pronouns 'I' and 'my' do not have overt pronoun equivalents.

Japanese 'pronouns' also differ from those in Indo-European languages in that they function syntactically as nouns (Harada 1975:511). A number of forms can function as pronouns. Among them are the following:

1st Person Singular	2nd Person Singular	3rd Person Singular
watakusi	anata	kare
watasi	anta	kanozyo
atasi	sotira	yatu
watai	sotti	aitu
wasi	kimi	soitu
uti	omae	koitu
boku	kisama	
ore	otaku	
ora		

1st Person Plural	2nd Person Plural	3rd Person Plural
watakusitati	anatagata	karera
watasitati	antara	kanozyora
atasitati	kimira	yatura
bokutati	omaera	aitura
orera	kisamatati	soitura
	otakura	koitura

These 'pronouns' are used when necessary to identify relevant NPs or to give special emphasis. The various forms represent different levels of deference. Most of these forms can be arranged on the basis of their politeness from the most to least polite.

4.3. Verbs

Verbs represent the most complex part of the honorific system, occurring in both lexical and grammatical forms. One form is triggered by the person addressed, and a number of forms are triggered by the person referred to.

The addressee honorific is signaled by the desu/-masu form where desu is the copula and -masu is the form that can be added to all verbs. A very polite form, gozaimasu, can be substituted for desu/-masu.

The reference honorifics can be divided into actor and non-actor forms. Briefly, actor

honorifics are used when the actor (often subject) is a socially superior person, and non-actor honorifics are used to express respect to persons in other grammatical relations such as object, etc. Actor and non-actor honorifics include the following forms:

Actor forms	Non-actor forms
o-V ni naru	o-V suru
V-(r)areru	o-V itasu
o-V da	o-V moosiageru

Among the actor honorifics, the form o-V ni naru is somewhat more polite than V-(r)areru, which Inoue (1974:21) characterizes as a low level honorific. The o-V da form is sometimes confused with o-N da (e.g., ohanasi desu, where hanasi can either be the noun or a verb from hanasu). The hyperpolite form o-V asobasu is not commonly used. Among the non-actor honorifics, o-V moosiageru is the most polite, followed by o-V itasu and o-V suru.

There is considerable variation in the percentage of verbs that can be attached to the various honorific forms. Table 1 shows that actor honorifics attach more readily to verbs than do non-actor honorifics. Both o-V ni naru and o-V asobasu can attach to about half of all verbs; -(r)areru can attach to more than three-fourths.

Among non-actor honorifics less than one-fourth of the verbs can attach to o-V suru and o-V moosiageru.

The percentages of more "common" verbs that can have honorific equivalents is generally higher than the percentage for all verbs. (Compare Table 1 with Tables 2 and 3). The form o-V ni naru seems to be especially sensitive to the degree of "commonness" of verbs. In contrast, -(r)areru attaches almost equally to all verbs and "common" verbs.[2]

Table 1.

Percentage of Verbs That Can Have Actor and Non-actor Honorific Forms

	Actor			Non-Actor	
Consultant	o-V ni naru	-(r)areru	o-V asobasu	o-V suru	o-V moosiageru
1	78.2%	86.0%	78.8%	47.1%	8.4%
2	60.5	80.8	65.8	34.3	44.0
3	38.9	83.7	8.2	17.2	4.0
4	38.1	73.4	61.8	14.0	51.1
5	31.4	72.8	25.6	10.5	7.4
Average Total	49.4	79.3	48.0	24.6	23.0

N = 476

Table 2.
Percentage of "Common" Verbs That Can Have
Actor Honorific Forms

Consultant	o-V ni naru	-(r)areru	o-v da	o-V asobasu
1	89.2%	92.3%	66.1%	86.9%
2	80.0	87.7	76.1	74.6
3	60.8	82.3	8.5*	12.3*
4	63.1	77.7	86.9	71.5
5	54.6	73.1	40.7	46.9
Average Total	69.5	82.6	67.4	70.0

N =130

* Average does not include these percentages

Table 3
Percentage of "Common" Verbs That Can Have
Non-actor Honorific Forms

Consultant	o-V suru	o-V itasu	o-V moosiageru
1	53.8%	61.5%	5.4%
2	46.2	43.8	50.0
3	31.5	13.8	6.2
4	26.9	51.5	60.0
5	21.5	25.4	9.2
Average Total	36.0	39.0	26.1

N =130

Although there is considerable variation among the consultants, variation tends to be regular among the more commonly used forms for both actor and non-actor type honorifics: o-V ni naru, -(r)areru, and o-V suru. That is, if a consultant tends to attach o-V ni naru to a high percentage of verbs, then the same consultant tends also to attach -(r)areru and o-V suru to a high percentage of verbs. For more extreme honorific forms, o-V asobasu, o-V itasu, and o-V moosiageru, and for o-V da, this regularity tends to break down.[3]

For verb attachments concerning which four or more of the consultants agree, the number of verbs that can take an attachment decreases as the degree of politeness increases. For example, all of the verbs that take the actor form o-V asobasu also could take the o-V ni naru attachment, and all of the verbs that take o-V ni naru could take V-(r)areru, except a stative verb, dekiru, 'to be able.' The same pattern hold for non-actor honorifics.

One type of verbal honorific is formed by substituting another lexical item that is its honorific equivalent. Of the sample of four hundred seventy-six verbs, four were themselves honorific forms, and seven were ordinary verbs that have honorific equivalents. Seven verbs represent 1.471%

of the sample, and if there are approximately 4,858 verbs in the dictionary, there are about seventy-one base verbs which can have either actor and/or non-actor lexical honorific equivalents. Among the one hundred thirty more commonly used verbs, the percentage of base verbs with lexical honorific equivalents is 2.6 times higher at 3.846%.

4.4. Nouns

Honorific nouns are formed by attaching the prefix o- or go- to the word. The choice of prefix depends largely on the origin of the word; o- attached chiefly to words of Japanese origin, and go- to words of Chinese origin (Miller 1967:276). There is no difference in the level of politeness.

There are reference honorifics among nouns, but there do not appear to be any addressee honorifics, except beautification forms. Reference forms include what might be termed actor and non-actor honorifics as well as possessive honorifics which can be considered a type of actor honorific. Possessive forms are triggered by a head noun that is a socially superior person as in:

(6) sensei no keigo ni tuite no GOkenkyuu.
teacher honorific concerning research
The teacher's research about honorifics.

Harada (1975:534) argues that a sentence such as the following represents an object (non-actor) honorific:

(7) asita odenwa de GOhenzi itasimasu.
tomorrow telephone answer give
Tomorrow I'll give you the answer by phone.

Table 4.
Percentage of Nouns to Which o-/go- Can Attach

Consultant	Percentage of 250 Nouns to Which o-/go- Attach	Percentage of 58 More Commonly used Nouns to Which o-/go- Attach
1	22.4%	46.3%
2	10.0	27.8
4	12.0	25.9

For the two hundred fifty noun samples taken from a dictionary, between 10.0% and 22.4% of the words could have prefixes (see Table 4). For the more commonly used nouns, those percentages more than doubled. Nouns with non-actor honorifics appear to be less common than actor honorifics, and both occur less frequently than beautification.

Adjectives

Adjective honorifics are formed by adding an honorific prefix and the suffix desu (e.g., oyorosii desu ka, 'Is it all right?'). Reference types are limited to actor forms, and addressee types seem to be limited to beautification forms. A hyper-polite form that is used infrequently contains gozaimasu (e.g., oyorosyuu gozaimasu ka).

4.5. Summary

All of the honorifications to parts of speech considered above can appear in an utterance, but in actual conversation some forms appear and others do not. The speaker may show respect by using both verb and noun honorific markers, or he may choose to use only one type. Given the variety of honorific markers in various parts of speech and the speaker's prerogative to use or omit certain forms, the number of possible politeness levels in conversation is very large indeed.

5. Variations Due to Research Methods

The considerable variation among the consultants' responses can be attributed in part to two aspects of the research methods used. The consultants may have given inconsistent answers, and the responses to the questionnaire may not have

accurately reflected the person's intuitions in speaking or listening.

To test the first issue, a set of ten verbs was administered to the consultants two weeks later. The verbs included o-V ni naru, -(r)areru, and o-V suru type honorifics. On the average, 14% (N=150) of the responses were different when taken the second time. Some consultants were more consistent than others (7% vs. 23%). there was a general tendency for consultants to allow more honorific forms the second time around.

To test the second issue, the consultant who had allowed the most honorific forms was asked to prepare a tape recording of the usage of ten honorifics in simulated situations. The other four consultants were asked to judge the acceptability of the honorifics used. Over 37% of the responses were different the second time. Twenty-seven percent of the previously rejected responses became acceptable, and 10% that had been previously acceptable were rejected in the situations used on the tape recording.

Allowing the consultants to spend more time thinking about a verb and its possible variety of meanings partly accounted for the increase in honorific forms. The consultants tended to consider more carefully each word on a list of ten than on a

list of five hundred. In addition the suggestion of usages that a consultant had not previously thought of (e.g., on the tape recording) contributed to an increase of acceptable forms.

Other observations about the reliability of the data can be made. Some consultants were more consistent in their responses than others. There was a greater degree of agreement among the consultants regarding more common verbs, and there were less "errors" among the common verbs.

The data can be viewed as an approximation of actual usage of honorifics. Usages for which four or five consultants are in agreement can be considered as fairly reliable, but other data should be used with caution.

6. Variation in Possible Honorific Forms

The variation of possible forms, concerning which the consultants are in agreement, can be attributed to various restrictons on the formation of honorific verbs, depending on the form.

Reference Forms

Honorification cannot occur generally where there is no human performer (i.e., agent or experiencer).[4] For example, kooru, 'to freeze,'

cannot have a human agent or experiencer and thus has no honorific equivalent. Hoeru, 'to bark,' does not have an honorific equivalent for the same reason. Secondly, honorification tends not to occur with any verb that has pejorative meaning or negative connotations (e.g., kuiarasu, 'to eat greedily,'). Lastly, honorific equivalents occur more frequently among commonly used verbs.

6.1. Actor Forms

The less polite the honorific form, the greater the number of verbs to which it can be attached. The three types of actor honorifics can be arranged from most polite to less polite: o-V asobasu, o-V ni naru, and V-(r)areru. Comparing o-V ni naru and V-(r)areru, a number of observations can be made. In the sample of four hundred seventy-six verbs the -(r)areru form attaches to longer verbs with an average length of 4.48 morae compared to 3.43 morae for verbs that attach to o-V ni naru. -(R)areru will also attach to words with somewhat negative connotations. Of the verbs that can be attached to -(r)areru but not o-V ni naru, about half of them are of that nature (e.g., kanzuku, 'feel,' kamituku, 'bite at,' sebiru, 'importune'). There also seems to be resistance to attaching o-V ni naru to verbs beginning with o- (e.g., oeru, 'to finish'). Four

of thirteen words (30.8%) that start with o- all the informants agreed could take -(r)areru, but all agreed could not take o-V ni naru. There is no difference, however, between the two forms for the other forty-five words that begin with vowels other than o-.[5]

6.2. Non-Actor Forms

Verbs that form non-actor type honorifics must contain an argument that affects another person. (For similar results see Neustpny 1977:136.) Non-volitional verbs (e.g., umareru, 'to be born'), stative verbs (e.g., dekiru, 'to be able'), speaker-centered verbs, and mode description verbs are excluded. The difference between narau and manabu, 'to learn,' illustrates the speaker-centered concept. Manabu is more "self-centered," and does not have a non-actor form, whereas narau, which emphasizes the process, does. Mode description verbs refer to the way an action is performed (e.g., siriau, 'to meet and learn to know') rather than the action itself (e.g., au, 'to meet').

It is possible to see many similarities in the formation of verb and noun honorifics. Some forms, such as the addressee honorific desu/masu, seem to attach to any verb. However, for verb reference and noun honorifics, some words have honorific

equivalents and some do not. Semantic restrictions determine whether honorific forms exist for most verbs and nouns. Lexical and phonological restrictions are of somewhat less importance. The restrictions on the formation of honorifics can be summarized as follows:

Semantic restrictions

Verbs cannot generally become honorifics unless the agent or experiencer are human. Nouns that are related to humans (feelings, culture, meals, furniture, houses, etc.) tend to allow honorification more readily than inanimate items not as closely associated with humans (such as trees, rocks, streams, etc.) (See Shibata 1957). Some nouns and verbs of pejorative meaning are also ineligible for honorification. The more polite the honorific, the stronger this restriction becomes.

6.3. Lexical Restrictions

Less commonly used words and words of foreign origin are less likely to have honorific equivalents for both verbs and nouns. There are many more nouns than verbs that are borrowed, but the restriction seems to hold for both. However, more data is needed to establish this in the case of verbs.

6.4. Phonological Restrictions

Honorific forms beginning with o- or go- do not readily attach to verbs or nouns beginning with o-. Longer words also tend to resist the attachment of honorific markers. This reflects the fact that more frequently used words tend to be shorter (Zipf 1935, 1949).

7. Variations and Language Change in Honorifics

From the historical record of Japanese, there is evidence of significant change in honorific forms. One change is the tendency of honorific forms to lose their honorific value over time (Inoue 1979, Dasher 1981). For example, polite "pronoun" forms repeatedly lose their politeness (Kamei personal communication).[6] Another factor is the tendency of reference-based honorifics to become addressee-based (Dasher 1981). In particular, non-actor or humble honorifics tend to become addressee honorifics. However, actor honorifics rarely if ever become non-actor honorifics.

One of the major advances in historical linguistics in this century was the linking of variation in linguistic forms to change in language. Change occurs as forms come into competition with each other, and one form gains

currency at the expense of another form. Variation in usage often reveals changes occurring in language.

A number of variant usages have been noted in the literature. In fact, quite a few books advising how to avoid improper use of keigo have appeared (Miller 1971). However, not all variation is the result of language change. A person may simply be unsure of the relevant social situation (Harada 1975) or the proper form used in a certain situation. Oishi (1975) notes that variation in usage may also result from differing standards of correct usage among persons of different social classes or ideologies.

One of the more interesting changes is the use of other honorific forms as beautification forms. In the following examples (from Okuyama 1981) reference honorifics are used as beautification forms, which is a type of addressee honorific:

(8)onomimono wa nani ni ITASHIMASU ka
drink what have-non-actor honorific
What will you have to drink?

(9)uti no akatyan ni miruku o AGERU
house baby milk give-non-actor honorific
(We) give milk to our baby.

(10)seisanzyo no KATA ni
fare-adjustment counter-person

kiite-kudasai
ask-polite imperative

Please ask the person at the fare adjustment counter.

In Sentence (8) an actor-type honorific would normally be expected because the addressee is the implied actor, but a non-actor type appears instead. The speaker is probably using itasimasu as a beautification form in this context. Sentence (9) contains the verb ageru, 'to give,' which is normally used to describe giving to a superior or to an out-group person. In this sentence milk is given to the baby of the house who is obviously in-group and inferior. Here also the speaker is trying to use polite forms and using ageru as a beautification form. The last sentence is used by an announcer in speaking to the public about a fellow employee. His use of kata (superior and/or out-group person) to refer to an in-group equal is not a "mistake," but rather a respect form which shows him to be a polite speaker.

The expanded use of beautification forms may reflect the increased importance of demeanor in modern society. In pre-Meiji times, social classes in Japan were largely ascribed by birth, whereas in modern society a person's status is based to a greater extent on achievement. In a society where

there is little or no social mobility, there is little or no pressure for an individual to change his speech to conform to another social class. However, in modern, mobile society persons are under pressure to use speech appropriate to the social position they have achieved or wish to achieve. Thus, one of the forces for change toward beautification forms in honorific usage is the attempt to present the self with polite usage. On the one hand, the use of beautification forms could be a shortcut to politeness for a person having difficulty fitting the multitude of forms to the social situation. On the other hand, it could be a case of hypercorrection (Labov 1972:244), where one social group is attempting to adopt honorific usage, and the use of beautification forms tends to be exaggerated in the process. Interestingly, it is often women who use beautification forms extensively. (There is even a emic term to describe women who overuse beautification forms, "zaamasu huzin.") This fits Labov's findings that it is often middle class women who tend to hypercorrect and consequently become agents of change in a language.

8. Summary Statement

Honorification in Japanese occurs in a number of parts of speech: terms of address and reference, pronouns, verbs, nouns, and adjectives. Reference and addressee honorifics are both present, and attach to nouns in the same manner, but to verbs differently. Among reference forms, actor types can be attached to verbs, nouns, and adjectives, but non-actor types are less numerous for verbs and nouns and non-existent for adjectives.

Only one form (o-/go-) attaches to nouns, and the context determines whether it is an addressee or reference honorific. Numerous addressee and reference honorifics can attach to verbs. Addressee forms can attach to all verbs, but reference forms can attach only to some verbs. Whether or not a reference verb form exists depends on the semantic characteristics of the verb, its length and its phonological shape. Honorific forms attach more readily to commonly used verbs, but the more polite the form, the fewer the verbs to which it can attach.

One possible future line of research would be to compare honorific systems that occur in various languages. A preliminary study of languages with honorifics (Wenger 1982) indicates that remarkable similarities exist in the types of honorifics that appear, in the way in which honorifics are

elaborated in different parts of speech, and in the semantic areas in which honorification occurs.

NOTES

[1]Harada (1975:502) has criticized the traditional terminology as being too semantic in orientation. He uses subject, object, and performative for respect, humble, and politeness forms respectively. Unfortunately, his terminology presents problems when used cross-linguistically. Although "subject honorific" seems to fit the Japanese data, it does not fit Madurese (see Wenger 1982) where the category "actor" must be used. "Object honorific" is actually a cover term for a number of different grammatical relations. For example, in Japanese it includes not only direct and indirect objects, but also action that is done for some honored person's benefit.

Neustupny (1977) distinguishes object honorifics as found in Sentence (2), and humble honorifics where the speaker humbles himself and indirectly shows respect to the other. Both types are subsumed under non-actor honorifics here since the respect is not given to the actor in either.

[2]Kitajo (1978) says that o-V ni naru is attached more readily to verbs than -(r)areru. As her sample she uses one hundred four very common verbs that appear in several Japanese elementary language textbooks. She found that o-V ni naru could attach to 78.9% of the verbs, but -(r)areru could attach to only 65.4%. However, in this present reduplication of her study, five consultants averaged 77.7% for o-V ni naru and 81.2% for -(r)areru even with the very "common" verbs in her list.

[3]In the case of o-V moosiageru there appear to be two different usages. For consultants 1, 3, and 5, this form is only used when the verb means "to say." For consultants 2 and 4, this form is also used as a more extreme non-actor honorific marker that can be attached to verbs of various meanings.

The variation in usage of o-V da may be the result of some consultants separating it from o-N da.

[4]Examples such as mamonaku kyuukoo ga mairimasu 'the express train will be arriving momentarily' would seem to be exceptions. However, the train can be viewed as something controlled by the company of which the speaker is an employee. Another possibility is that mairimasu is being used in this context as a beautification form.

[5]This observation is limited to o-V ni naru and -(r)areru. Mr. Shozo Takemoto pointed out to me the following construction where honorific o- does attach to a verb beginning with o-: o osame Kudasai, 'Please accept this'; o ori Kudasai, 'Please get off'; o oki Kudasai, 'Please put it on nere'.

[6]Head (1978:194) indicates that honorific pronouns tend to lose their politeness in all languages.

PRESUPPOSITIONAL CULTURE SPACES: LANGUAGE USE IN EVERYDAY LIFE

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1. Sociolinguistics: an indexical study of language

In a very general way, sociolinguistic problems are characteristically oriented in one main direction--toward finding the indexical value of language in different socio-cultural contexts or in all contexts in a given society. It is to J.R. Firth's credit (who was apparently inspired by his anthropologist friend Malinowski) that the appreciation in linguistics of this search for the indexical uses of language began to develop under his general cover term the "context of situation."[1] The Firthian stance was to insist that the scope of linguistics, especially in respect to the semantic aspect of language, must be changed--that autonomous linguistics was too narrow in scope and had to be enlarged to accommodate the "context of situation" because "utterances were

produced and understood not as self-contained events, but strictly within a shared context of situation," and therefore, "the meaning relation should not be thought of as dyadic one between a word and its referent, but as a multi-dimensional and functional set of relations between the word in its sentence and the context of its occurrence."[2]

The search for the indexical use of language may be carried out in terms of societal domains as defined by Fishman, or in terms of regions as in dialect geography, or in terms of social classes in the public domains as has been done by Labov. What these approaches share in common is the observation that within each speech community there is a variety of language codes and styles from which to choose, but that "it is very unlikely that any individual is able to produce the full range--different subgroups of the community may understand and use different subsets of its available codes."[3]

Among the ways to explore the variety of codes, Fishman finds:

> Just as there is no societally unecumbered verbal interaction, so are there no large scale relationships between language and society that do not depend on individual interaction for their realization. Although there is no

> mechanical part-whole relationship between them, micro- and macrosociolinguistics are both conceptually and methodologically complementary.[4]

This complementarity of the two approaches, however, is not often met in our research. Sometimes we assume that the macro-approach is necessarily based on investigation of the everyday interactional situations. Sometimes the micro-level investigation is assumed to lead to a generalization of the given society's value clusters (e.g., Feagin[5]). Many sociolinguistic observations and conclusions are drawn from an examination of linguistic variables elicited often in the interview sessions which are just one specific type of interactional situations. Feagin, for example, investigated sex differences in terms of some linguistic variables in the Nonstandard Southern White English of Anniston, Alabama, as used by 41 people, with at least six people in each group of rural men, rural women, urban men, urban women, urban teenage boys and urban teenage girls. The data collection procedure was described by Feagin as follows:

> The data under discussion is derived from tape recorded interviews with 41 working-class informants who were natives of the area or who had moved there by age six. Similar data from

> an equal number of upper-class informants with the same age and sex distribution showed almost no variation whatsoever from Standard English--too little to be of any interest here... The 15 rural informants were all over 60 years old: 7 men, 8 women. I interviewed all the informants myself, following an interview schedule rather roughly. The interview was designed to elicit demographic information, to set the informants at ease, and to get them to talk as much as possible. The interview averaged one hour per person--a total of 45 hours for the data discussed here.[6]

Sociolinguistic works, like Feagin's, tend to investigate the use of language assuming that people interact in congruent situations to which all those speakers have equal access. In such an approach, we are often left with unexplained free-variation-like residues.[7] Delicate variations of a given language cannot be accounted for without a residue when they are described in terms of dialect geography or in term of any single social level within a culture territory, as in attempts to describe lower class speech without reference to upper class speech.[8] Nor can they be accounted for in terms of any single interactional situation without reference to other situations.

2. Domain Analysis

In a more concrete manner, Fishman proposes the following:

> The situational analysis of language and behavior represents the boundary area between micro- and macrosociolinguistics. The very fact that a baseball conversation "belongs" to one speech variety and an electrical engineering lecture "belongs" to another speech variety is a major key to an even more generalized description of sociolinguistic variation. The very fact that humor during a formal lecture is realized through a metaphorical switch to another variety must be indicative of an underlying sociolinguistic regularity, perhaps of the view that lecturelike or formal situations are generally associated with one language or variety whereas levity or intimacy is tied to another (Joos 1959). The large-scale aggregative regularities that obtain between varieties and societally recognized functions are examined via the construct termed <u>domain</u> .... (emphasis in the original).

Fishman further states that:

> Sociolinguistic domains are societal constructs derived from painstaking analysis and

> summarization of patently congruent situations.... Frequently, it is helpful to recognize a number of behaviorally separate domains (behaviorally separate in that they are derived from discontinuous social situations), all of which are commonly associated with a particular variety or language.[9]

Through the "domain" approach, we may find a range of variations within a language or between languages, which type of persons tend to use which variation, and for what purposes. It will also be found from this whether or not one and the same person (or a group of persons) changes his/her way of speaking when the domain changes. It seems that in Japanese sociolinguistic studies, the investigators often focus their attention to the role differences and associated variations within one domain and do not focus on the variations used by an individual in different domains.[10] Bachnik, for example, describes the self/other reference forms in terms of the relationship that the speaker establishes with the hearer.

> An organization of discourse that is described at once by enormous variation of terms, ... seems hopelessly contradictory. However, these apparent contradictions can be resolved ... by a multiple perspective that includes the

> relationships between discourse utterances, the social participants who produce the utterances, and the relationships they are negotiating in discourse.
>
> The point along a continuum between speaker and addressee which an utterance defines is generated only by participants in a particular discourse. Their reference to person is defined by their mutual "locating" of one another, and the mutual "locating," in turn, depends on how they have defined their respective relationships.[11]

Negotiation of role relationships and subsequent locating of one another presuppose that the participants have already identified the domain of which they are part. Identification of a domain, however, is not enough for participants to proceed in carrying out their activity. It is not enough because each domain is composed of a number of social and interactional situations in which actual interactions take place, and any speech event occurs in a social situation, not in a domain.

3. Culture Spaces As Sociolinguistic Framework

A domain is a cluster of social situations[12] in which the roles of the participants are given in terms of a set of behavioral rules. When we look at

social situations and societal domains, we find in common among them "space" and "time"--i.e., human existence depends on the occupation of some physical space at certain social time. The physio-temporal space is a social construct and it carries a set of socially specified meanings, i.e., cultural meanings.[13] When we engage in an interaction with other members of a society, or even with oneself, we presuppose a certain physio-temporal space.

No human being lives alone segregated from fellow human beings, except temporarily as when using a bathroom, taking a shower, writing a letter, and so on. Consequently,

1. when two or more individuals carry out some kind of activity together, they share some physical space;
2. a group thus formed occupies one physical space at a given time;
3. an individual within the group shares many culturally defined spaces with the same and/or different members of the group at different times;
4. individuals develop a sense of belonging to certain physio-temporal spaces;
5. a physio-temporal space, in turn, comes to be indentified as cognitive reality to

which only appropriate members are allowed to enter;

6. membership/admission requirements in general consists of such factors as a) sex, b) age, c) occupation, d) status, e) education, f) ethnicity, g) language, and so on;
7. some physio-temporal spaces may ignore some of the above (6a-g), some others all of the above, and still others none of the above--thus showing the differences between personal and public spaces;
8. the physio-temporal space imposes restrictions of WHAT activity or activities are to be carried out;
9. the physio-temporal space in addition imposes HOW activity or activities are to be carried out;
10. participation in an activity requires communication with other participants;
11. hence, the physio-temporal space may impose WHAT communication DEVICE(S) is/are to be used;
12. the physio-temporal space may also impose WHAT is to be communicated, i.e., topic and content;
13. the physio-temporal space may impose WHO can communicate with WHOM; and

14. furthermore, the physio-temporal space may restrict WHO can initiate or terminate a given communication.

These constitute the meaning of a physio-temporal space. A physical space alone may carry certain meanings but they are general and sometimes vague. If you walk into a classroom and find that chairs and desks are neatly placed, you may probably feel comfortable to remain there to study for the next class you must attend. You feel comfortable because a classroom is for some educational activity to take place. You may feel uncomfortable, on the other hand, if you are to engage in affectionate exchanges with your girlfriend. The physical space, a classroom, gives you a general idea about what kind of activities are typical and permissible and what are not. However, when a specific socially significant time is added to the physical space, the range of meanings are narrowed down and specified. For example, if you walk into the same classroom again and now you find a janitor cleaning the room, you may not just sit on one of the chairs and start preparing for the next class. Instead, you may ask the janitor if you could stay there. The presence of the janitor (and the action of the janitor) is interpreted as a symbol for what socially significant time it is, i.e., the cleaning time.

We define such physio-temporal space as culture space, namely, culture space is a physio-temporal space in which individuals are experiencing their daily life and which is often identified as a social or interactional situation.[14] Culture space is, then, a physio-temporal space which functions as a frame within which a certain activity is carried out by persons (i.e., individuals with specified roles). Since every social situation involves shared expectations or presuppositions about who will do what, and where and when as well as how, knowledge of culture space therefore must include the following:[15]

1. Physical Space

Some space is visibly bounded, e.g., by walls, curtains, barbed wires or lines on the ground, whereas other spaces may be surrounded by invisible boundaries. An individual must be able to perceive these boundaries and what such bounded space may mean. Once this is done, the individual may seek further signs within that bounded space that will tell him/her more specific meanings of the space--e.g., fixtures withing it such as a blackboard or movable fixtures such as tables. One's ability to identify such signs assist him/her in locating what rules of behavior there may be in that space.

2. Social Time

Social time may be indicated by any sign which functions as a 'clock' for the individuals involved. Signs may be elements of natural environment, man-made objects, presence or absence of a person, or actions of a person whether verbal or nonverbal. The same sign may represent different 'social' time--e.g., the presence of a professor in the classroom may indicate that it is time to engage in some instructional activity, but the presence of the same professor in a bar with the same set of students may not function as the 'social' time sign.

3. Activity

A physio-temporal space as identified above in 1 and 2 is presupposed to have one activity as typical although there may be other activities simultaneously taking place. When ambiguity develops, it is often the sign of the emergence of two or more sub-culture spaces.

4. Belonging

The physical space may be owned by an individual as his property, or by a group of individuals, but a culture space of which the physical space is part may not belong to the same individual or the group. In a sacred space, people may be allowed to enter, it being known to them that the space belongs to

God. An apartment may be owned by one individual and rented to another; culture spaces created within it do not belong to the owner but to the renter.

5. Admission

Who is allowed to enter the culture space? If a given culture space is totally public, i.e., if it does not belong to any specific individual or group, most people may be allowed to enter. However, many other culture spaces are not totally public and some qualifications are placed on the individual. It should be also noted that those who are permitted to enter the culture space do not all belong to the same category. Permissible people, thus, can be subdivided in the following categories:

a. decision-maker

Some individual may be endowed with the power of authority. If he/she wants, he/she can make the culture space cease to exist, change its rules and so on.

b. participating regular members

A further division of roles may be found in this category of persons in terms of factors such as seniority, age, sex, etc.; common characteristics of persons in this category are the lack of decision-making power but the right to participate in full in the activity within the culture space.

c. guests

Some individual may enter the culture space upon invitation or request. Often the guest is treated as if the culture space belongs to him/her, although he/she knows perfectly well that it does not and that he/she is not a full regular member; frequently, the invited guest may be given a special but temporary role to play, such as that of making a confessional speech to a group of Protestant church members.

d. service members

Upon agreement or obtained permission, some individual may enter the culture space as a helping hand who contributes to the survival and maintenance of the culture space. At a company conference, a secretary may enter to fill the coffee cups, clean the ashtrays, or announce the arrival of a guest.

e. observer

Some culture spaces may allow individuals to enter as observers but not participants. The members of the culture space are aware of their presence in it but they may not overtly pay attention to the observers.

Note that each category of persons described above may occupy a specified status with its "label" which often signifies the role associated with the

status. Such labels may differ from one culture space to another, or they may apply commonly to many culture spaces.

4. Categorization of Culture Spaces

In the framework presented above, we can restrict our observation and analysis to considering small segments of the total culture one at a time. Within each culture space, we can observe a relatively small number of persons interacting with each other. When we look at the societal domains, we find that each domain is a complex collection of varied culture spaces. A domain, then, cannot be defined simply in terms of formalness or informalness, of who can or cannot enter, of what one can do or cannot do, or of what roles are involved. We can only generalize in spatial terms (e.g., a university campus, a bus depot, etc.) or in social time terms (e.g., a funeral, a dance party, etc.). Culture spaces within a domain--and human behavior in general--may be categorized in a variety of ways depending on the purpose of that categorization.

Japanese may categorize his/her interactional domains in terms of two sets of dichotomous notions: uti-soto and ura-omote. Lebra states:

> First, the Japanese distinguish one situation from another according to the dichotomy of uti and soto. Uti means "in, inside, internal, private," whereas soto means its opposite, "out, outside, external, public."[16]

Lebra further states that the uti-soto dichotomy is not sufficient to characterize a situation, and she adds the second dichotomous notion omote-ura: "Omote refers to 'front,' or what is exposed to public attention, whereas ura means 'back' or what is hidden from the public eye."[17] The two sets of dichotomous notions create the following four situational categories:

	Omote ("Front")	Ura ("Back")
Uti ("In")	Intimate/Ritual	Intimate
Soto ("Out")	Ritual	Anomic

Although Lebra states that "the uti-omote combination, namely, a situation both 'inside' and yet 'front' is unlikely to occur,"[18] we do find such situations in the Japanese everyday interactions, as we will show later. Lebra explains the other three categories as follows:

> In the intimate situation, Ego both perceives Alter as an insider and feels sure that his

behavior toward Alter is protected from public exposure. Opposed to the intimate situation is the ritual situation, where Ego perceives Alter as an outsider and is aware that he is performing his role on a stage with Alter or a third person as audience. Confidentiality, which characterizes the intimate situation, is lacking in the ritual situation. Finally, the anomic situation contrasts with the intimate situation in that Ego defines Alter as an outsider, which rules out intimacy between Ego and Alter; it contrasts with the ritual situation in that Ego is freed from the concern that an audience is watching his behavior. The anomic situation is likely to occur when Ego finds Alter or a third person to be a stranger or enemy who does not share Ego's norms and whose approval is irrelevant to Ego. It is in this sense that the anomic situation combines soto and ura.[19]

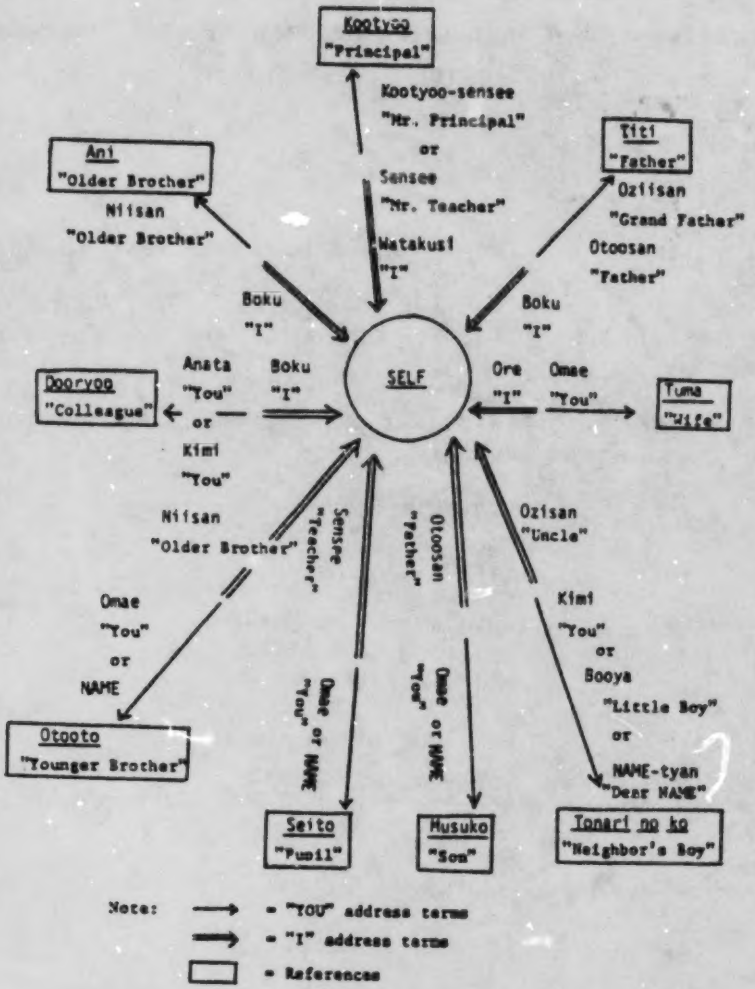
The Omote-uti situation can be described as the situation where Ego finds Alter to be an insider (same as the intimate situation) but there is a third person present who is very often some supernatural being such as an ancestral spirit, local deity, and so on. This situation also includes an interaction of intimate persons in an

incongruent or transitional situation such as an exchange of greetings at the entrance of one's friend's home before engaging in a casual interaction over a cup of tea in the family room.

Each societal domain contains all of the four situational categories, although some domain may include more varieties of one category than others. In our everyday interaction, we act (or do not act) in accordance with our presupposition about the culture space in which we find ourselves, establish a new set of presuppositons if the culture space is totally alien, modify our presupposition if some change is a desired goal, or in general we may manipulate our and other participants' presuppositions. [This can be achieved in a variety of ways: by our appearance, by changing our ways of speaking, by changing some fixtures of the space, by inviting in some unusual person/object, etc., i.e., by changing the meaning of the space, time or both.]

5. Japanese Self/Other Address Terms

Suzuki presents an interesting and informative discussion on the use of address terms. In a summary of the use of address terms by a 40 year old male primary school teacher, Suzuki shows the following:[20]



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Suzuki subsequently explains the delicacy of the use of these terms and expands his list, but without specifying when and where they may be used. Harada lists the following for "First Person" and "Second Person"[21]:

a) First Person

watakusi	(very formal for men; less so for women)
watasi	(formal for men, but average for women)
atakusi	(rare for men; sounds snobbish for women)
atasi	(chiefly for women; colloquial)
ware	(archaic)
wasi	(dialectal, chiefly for men; regarded as characteristic of an old generation)
boku	(exclusively for men)
ore	(exclusively for men; colloquial)

b) Second Person

anata	(standard and polite)
anta	(informal)
sotira	(polite and very formal)
sotti	(colloquial)

kimi	(chiefly used by men to refer to men of equal or lower social status)
omae	(informal and colloquial, somewhat pejorative)
Kisama, temee	(derogatory and very impolite)

Although there are many more "I"-terms and "YOU"-terms in Japanese, the fact is that not everybody uses all such terms--the distribution of these terms among different groups of persons can be accurately described in macrosociolinguistic investigations. The appropriate use of the terms as in the lists above can be seen in the four situational categories or four types of culture spaces. For the purpose of this paper, we will take the example of the husband-wife dyad.

6. Data Collection

Saville-Troike presents a variety of data collection procedures all of which should be incorporated in order for us to fully understand the speech event. She states:

> There is no single best method for collecting information on the patterns of language use within a speech community. Appropriate procedures depend on the relationship of the ethnographer and the speech community, the type

> of data being collected, and the particular situation in which fieldwork is being conducted. The essential defining characteristics of ethnographic field procedures are that they are designed to get around the recorders' biased perceptions, and that they are grounded in the investigation of communication in natural contexts.[22]

Among a reportoire of field methods, Saville-Troike lists "Introspection."

> Introspection is a means for data collection only about one's own speech community, but it is an important skill to develop for that purpose. This is important not only for data collection per se, but for establishing the fact that everyone has a culture, and that questions about various aspects of language and culture require answers from the perspectives of researchers' own speech communities as well as those of their subjects.[23]

Similarly, the data presented below are obtained by introspection. A middle-aged married couple constructed the dialogs. Six other couples examined them as to their legitimacy. All agreed that these might in fact be real. It may be argued that such data do not show the "real" use of language, but when a consensus is obtained as to their likely

occurrence, we may be justified in using them as pseudo-real data. More importantly, the process of postulating examples showed the usefulness of the culture space frame. The frame showed its effectiveness in conceptualizing an interaction, looking at the interactional details, analyzing what is going on, and in interpreting the "appropriateness" of the given interaction.

7. Self/Other Address Terms in Culture Spaces

In the following examples, individuals in parentheses indicate ambiguity of their roles.

Culture Space Type I (Intimate)

1. Space

   Living room

   Time

   TV on (which draws Child to the television area and allows him to form his own private but fragile culture space), presence of the everyday tea set

   Activity

   Watching TV, chatting

   Belonging

   Husband, Wife

   Admission

   a. Decision-maker: Husband (Wife)

   b. Regular member: (Wife)

c. Guest: none

d. Service members: Wife (Husband)

e. Observer: Child

Husband: Kee-tyan, are doosita?
Kee-tyan, what did you do with that? (Intimacy and affection are expressed by the term 'Kee-tyan'.)

Wife: Ara, Aki-tyan sitanzya nai?
Ara, didn't you take care of that, Aki-tyan? (Wife reciprocates intimacy and affection.)

Husband: Boku siranai yo.
I don't know. (Intimacy retained but affection fades away.)

Wife: Soo'o, okasii wa nee.
Well, that's strange! (Intimacy and affection retained but distancing becomes established.)

Husband: Kimi wa itumo koo da kara naa.
You are always like this! (Intimacy retained, but affection disappears and distancing becomes established.)

Wife: Anata datte soo yo.
You are, too. (Affection disappears and distancing become more notable.)

Husband: Ore wa itumo.... Oi, haizara totte kure.
I always.... Hey, get me the ashtray!
(Male dominance is shown off and female submission is asserted.)

Wife: Zibun de totte yo.
Get it yourself. (Wife protests Husband's selfishness.)

2. Same as Culture Space 1 above, except the content of Admission:
   a. Decision-maker: Husband (Wife)
   b. Regular member: (Wife) (Child)
   c. Guest: (Child)

   Note that the culture space is still "intimate," i.e., the actors within the culture space are all insiders, but now one additional actor Child is present. The presence of Child adds two more role relationships, Father-Son and Mother-Son in addition to Husband-Wife.

Husband: Mama, are doosita?
Mama, what did you do with that? (Husband is addressing his wife from the point of view of Child--intimate and affectionate.)

Wife: Ara, papa ga sitanzya nai?
Ara, didn't you take care of that, Papa? (Wife also takes Child's point of view

and addresses her husband as Papa--intimate and affectionate.)

Husband: Boku siranai yo.
I don't know. (Intimacy retained but affection begins to fade.)

Wife: Soo'o, okasii wa ne.
Well, that's strange! (Intimacy and affection retained but distancing begins to take place.)

Husband: Mama wa itumo koo da kara naa.
You are always like this, Mama. (Intimacy retained but affection disappears by accusing Wife, thus distancing becomes notable.)

Wife: Papa datte soo yo.
You are, too, Papa. (Affection begins to fade away, thus more distancing from Husband becomes notable while alliance with Child becomes stronger as Husband tries to achieve alliance in the previous utterance.)

Husband: Ore wa itumo.... Oi, haizara totte kure.
I always.... Hey, get me the ashtray! (Transcend the roles of Husband and Father and male dominance is shown off, while intimacy is retained.)

Wife: Papa, zibun de totte yo. (To Child) Papa zurui wa nee.

Get it yourself, Papa. Papa is sneaky, isn't he? (Wife protests Husband's selfishness and tries to make a stronger alliance with Child against Husband.)

Culture Space Type II (Intimate/Ritual)

1. Space

   Living room

   Time

   TV on, presence of a good tea set, Husband's parents present (which, in addition to the presence of the good tea set, are the social time marker, i.e., all the participants are members of one 'in-group' but the culture space is formal.)

   Activity

   Watching TV, chatting

   Belonging

   Husband's parents, Husband, Wife

   Admission

   a. Decision-maker: Husband's Father, Husband
   b. Regular members: Husband's Mother (Wife)
   c. Guest: (Wife)
   d. Service members: Husband's Mother (Wife)
   e. Observer: None

Note that the culture space includes members of one family but that Wife now a member was recruited into

the family through marriage. Wife therefore still occupies a status in which her role is ambiguous.

Husband: Keeko, are doosita?
Keeko, what did you do with that? (Intimate and affectionate, but with some distance from Wife by exhibiting authority over Wife.)

Wife: Ara, anata ga site kudasattanzya nai?
Ara, didn't you take care of that? (Intimate and affectionate, but with some distance from Husband indicated by the honorific expression site kudasatta "(honorable you) gave me a favor of doing it for me," while "YOU"-term anata is used to express intimacy and affection.)

Husband: Boku siranai yo.
I don't know. (Intimacy retained but affection fades away.)

Wife: Soo'o, okasii desu wa nee.
Well, that's strange! (Intimacy still retained but distancing becomes marked in the use of polite copula desu, thus Wife's affectionate attitude toward Husband is greatly reduced.)

Husband: Omae wa itumo koo da kara naa.
You are always like this! (Intimacy still retained but by showing off his dominance

over Wife the affectionate attitude toward Wife completely disappears.)

Wife: (No reply; silent protest.)

2. Same as above except the following:

Belonging

Wife's parents, Husband, Wife

Admission

a. Decision-maker: Wife's Father
b. Regular member: Wife's Mother, Wife(Husband)
c. Guest: (Husband)
d. Service members: Wife's Mother, Wife
e. Observer: None

Husband: Kecko, are doosita?
Kecko, what did you do with that? (Intimate and affectionate, but with some distance from Wife by suppressing his authority over Wife expressed in his tone of voice.)

Wife: Ara, anata ga sitanzya nai?
Ara, didn't you take care of that? (Intimate and affectionate)

Husband: Boku siranai yo.
I don't know. (Relationship with Wife retained as has been established by the first utterance.)

Wife: Soo'o, okasii wa nee.
Well, that's strange! (No marked change occurs.)

Husband: Kimi wa itsumo koo da kara naa.
You are always like this! (Intimacy retained but more distancing begins to develop, thus reducing the attitude of affection toward Wife.)

Wife: Akira datte soo yo.
You are too, Akira. (Intimacy still retained but distancing becomes marked by addressing Husband by his first name, thus showing the control over Husband.)

Husband: (No reply; silent protest.)

In the previous culture space, it was Wife who became a new member of the family and played somewhat ambiguous roles. Here in this culture space Wife's parents are visiting and it is Husband's roles that become ambiguous.

Culture Space Type II (Ritual)[24]

Space

Guest room of a medical doctor's house

Time

Tea/Cocktail time before dinner; Medical Doctor's friend (school teacher) and wife,

both in their 30's, were invited to the house for dinner; they are nicely dressed.

Activity

Drinking, chatting

Belonging

Medical Doctor (in his 50's) and his wife (40's), Teacher and his wife

Admission

a. Decision-maker: Medical Doctor
b. Regular member: Doctor's Wife
c. Guests: Teacher and his wife
d. Service member: Maid
e. Observer: None

Doctor to Teacher:

Watasi no ku wa mada haiku to wa ienai desu na.
My verse cannot yet be called Haiku.
(Doctor sets the tone of the speech event as "formal" by using the self-address term watasi. At the same time, together with the particle na "assertive," watasi places Doctor in a superior position to the rest of the participants.)

Teacher to Doctor:

Sonna koto arimasen yo. Nakanaka taisita mono desu. Watakusi moo siti-hati-nen mo yatte imasu ga, doomo me ga demasen.

That's not so. You are quite good. I have been practicing already seven or eight years, and still hardly any improvement seems to come about. (Teacher uses the very formal self-address term watakusi, thus placing himself in a humbler positon in relation to Doctor.)

Teacher to Doctor's Wife:

Sono ten okusama no wa doodoo to sita mono desu yo.

Speaking of good Haiku, yours are excellent. (Teacher addresses Doctor's Wife as okusama, a very formal and polite term, thus placing her in an elevated position.)

Doctor's Wife to Teacher:

Ara, sonna koto gozaimasen wa. Watakusi no mo syuzin no to nitari yottari de...

Oh, no, that's not so. Mine are much the same as my husband's...

(Doctor's Wife uses the formal self-address term watakusi and the very polite verbal gozaimasen "not be" to confirm the formal and polite nature of the culture space. The effect is to accept the proposed superior position of Doctor and herself to Teacher and his wife, thus allowing social distance between the two groups.)

Doctor's Wife to Doctor:

Nee anata, watakusi haiku o hazimete nan-nen ni narun zansyo?

Well, darling, how long has it been since I started Haiku? (While retaining the politeness by using Watakusi, Doctor's Wife displays her intimate attitude by anata and the verbal zansyo? "will it be?")

Doctor to his Wife:

Soo da ne... watasi ga ni-nen da kara omae wa san-nen ka na?

Let me see... since it has been two years for me, I imagine it has been three years for you. (Doctor retains politeness as expressed in the use of polite particle ne and the address term watasi, and he expresses intimacy with omae "you" while at the same time retaining his elevated position by watasi and the particle na.)

Teacher's Wife to her Husband:

Nee anata, watasi no tukutta no motte kite kudasatta no?

Well, honey, did you bring those which I composed? (Politeness is retained by using anata and watasi, while at the same time these terms showing intimacy. The verbal kudasatta "(a

superior) gave a favor" expresses the relative inferior position of Teacher's Wife to him.)

Teacher to his Wife:

Aaa, motte kita yo. Kimi no mo nakanaka waruku wa nai ne.

Yes, I brought them. Yours are not too bad, either. (Intimacy is displayed by the non-polite kita yo "(I) came+confirmation." Politeness is, on the other hand, retained by kimi "you" and the particle ne.)

Teacher's Wife to Doctor's Wife:

Okusama, watakusi no o tyotto mite itadakemasen kasira? Totemo yootinan de gozaimasu keredo...

Madam, I wonder if you could take a brief look at mine. Although mine are very unrefined... (Teacher's Wife places herself in a humbler and inferior positon to Doctor's Wife as indicated by okusama (to Doctor's Wife) and watakusi (to herself). Note that Teacher's Wife shifts from watasi (when talking to her husband) to watakusi (when interacting with Doctor's Wife). The extreme politeness is displayed by the verbals itadakemasen "(an inferior) not receive a favor (from a superior)" and gozaimasu "polite be.")

Doctor's Wife to Teacher's Wife:

Sonna koto nai zansyo. Watakusi nanka haikensite mo wakaranai zansu ga...

I don't imagine that is so. Persons like me will not understand them even if they look at them, but... (Politeness and formalness retained by the use of watakusi "I" while Doctor's Wife's higher status being displayed by the verbals zansyo "probably not be" and zansu "be.")

Culture Space Type IV (Anomic)

Space

Ginza (a busy commercial street in Tokyo)

Time

Shops are open, crowded

Activity

Strolling, shopping

Belonging

No one particular person belongs exclusively to the culture space--almost no restrictions placed.

Admission

No specific restrictions exist. Individuals often form and carry with them their personal culture spaces.

a. Decision-maker: Husband

b. Regular member: Wife

c. Guest: None

d. Service member: None

e. Observers: Strangers on the same street

The culture space is public in that no one particular individual belongs exclusively to it and no specific restrictions may be found as to admission. Existence of potential observers places some constraint on the behavior, but actors in such a culture space engage in an activity as if the culture space belongs exclusively to them, i.e., as if it is their personal culture space.

Husband: Keeko, are doosita?
Keeko, what did you do with that? (Intimate but affectionate attitude suppressed.)

Wife: Ara, Akira ga sitanzya nai?
Ara, didn't you take care of that, Akira? (Intimate but affectionate attitude suppressed.)

Husband: Ore siranai yo.
I don't know. (Intimacy retained but male dominance asserted.)

Wife: Soo'o, okasii wa nee.
Well, that's strange! (Intimacy retained.)

Husband: Omae wa itumo koo da kara naa.
You are always like this! (Stronger male dominance asserted by putting Wife down.)

Wife: Anata datte soo yo.
You are, too! (Strong protest expressed by using the polite address term anata.)

2. Same as above except the content of admission:
Admission
   a. Decision-maker: Husband
   b. Regular members: Wife (Child)
   c. Guest: (Child)
   d. Service member: None
   e. Observers: Strangers

The difference between this culture space and the one shown above is the presence of Child. The interaction begins as if from the point of view of Child.

Husband: Mama, are doosita?
Mama, what did you do with that? (Intimate and affectionate. Once Husband takes on the viewpoint of Child in addressing Wife, his expressing affection is not suppressed.)

Wife: Ara, papa ga sitanzya nai?
Ara, didn't you take care of that, Papa? (Intimate and affectionate.)

Husband: Boku siranai yo.
I don't know. (Intimacy retained but male dominance asserted.)

Wife: Anata datte soo yo.
You are, too. (Intimacy retained but Wife protests Husband's attitude by using the polite anata.)

Husband: Ore wa itumo...
I always... (Husband reasserts his dominance, thus more distancing developed.)

7. Analysis and Discussion

In the examples presented above, we find two types of style-shifting[25] occur represented in the shifts in Self/Other Address Terms. One type of style-shiftng is observed across culture space types, which we call "situational style-shifting,"[26] and the other within a single culture space, "metaphorical style-shifting."[27]

The following chart summarizes the occurrences of "I"-words and "YOU"-words in the four types of culture spaces.

Culture Space Type	Toward Husband(Ego)	Toward Wife
Type I, 1 Intimate	Boku ore	Kee-tyan kimi oi
Type II, 1 Intimate/Ritual	boku ore	mama oi
Type II, 2 Intimate/Ritual	boku	Keeko kimi
Type III Ritual	(watakusi) (boku)	kimi
Type IV, 1 Anomic	ore	Keeko omae
Type IV, 2 Anomic	boku ore	mama omae

In all four types of culture spaces, we find the recurrence of Husband's self-address term boku. the term is usually interpreted to be "polite," i.e., the speaker uses the term when he wants the audience to know that he is on an equal basis with the addressee and that he is not placing himself higher or lower than the addressee. When there are just

the speaker and the addressee in a given culture space, the use of boku expresses the care and affection toward the addressee. Note that in Culture Space Type III above, the school teacher uses the formal (and polite) watakusi when he is interacting with the doctor-friend, while boku with his own wife. If he had used boku when interacting with the doctor, he would have been interpreted to be excessively friendly with the doctor--inapproapriate, and watakusi when talking with his own wife would have been totally inapproapriate in that the school teacher would have appeared to the audience to be treating his own wife as if she had belonged to the doctor's family.

The terms used by Husband toward his wife, on the other hand, show a clearer distinction he makes between appropriate and inappropriate uses of styles. In "intimate" culture spaces, he is free to use affectionate terms, First Name plus the diminutive suffix (Kee-tyan) or the term ordinarily used by Child (mama). The same term mama appears in "intimate culture spaces" (Type I) and "anomic culture spaces" (Type IV). Child is permitted to show any emotion (affection, frustration, anger, etc.) in almost any culture space--a 'spoiled brat' phenomenon we often witness in Japan. Adults' activities center around their young children and

address terms used toward one another among adults often mirror those used by children toward adults around them. Those terms become a convenient means of expressing feelings and emotions which are otherwise suppressed.

When the culture space is "intimate" and when the presence of other (potential or real) audience is acknowledged as in Culture Space Types II (Intimate/Ritual) and Type IV (Anomic), Husband uses Wife's first name without the diminutive suffix (Keeko), while in a formal culture space such as Type III (Ritual) the use of Wife's first name is avoided. Expression of "intimacy" in "Ritual" and formal culture spaces is inappropriate, thus the "polite" kimi is used instead. The term kimi, just as "I"-word boku, shows the care and affection toward the addressee, but not excessively so.

The pair of "I"- and "YOU"- terms, then, becomes a symbol that signifies in what type of culture space one is interacting with what category of person(s).

When we look at the address term shifts within a given culture space type, we find that they represent changes in the kind of relationship between Husband and Wife, i.e., the address term shifts are symbolic of role-relationships between a given dyad, thus "metaphorical style-shifting." In

the "Intimate" culture space (Type I, 1), for example, Husband begins the speech event using the self-address term boku--he indicates that he is not "bossy," he cares about his wife and he feels affectionate toward her. This is reinforced by his use of Kee-tyan when talking to her. The shift from the affectionate Kee-tyan to the "polite" kimi shows that the husband is now imposing his desire to change the "loving relationship" to that on equal basis--thus some social distance has developed between the husband and his wife. Finally, the husband employs the self-address term ore and shows that he is the "boss" and that his wife should not question the authority of her husband. This change becomes apparent when he uses oi to his wife. The husband's use of oi "hey" reasserts his dominance over his wife and her subordinate state.

A metaphorical style-shifting such as we observe in the "intimate" culture spaces will not occur in "ritual" culture spaces (Type II and Type III), although it may occur in "anomic" culture spaces. The range of the appropriate behavior differs from one culture space type to another.

8. Summary

In our everyday interaction, we assume roles appropriate to a given culture space. If we don't, some conflict arises, or we will be totally incapacitated as participants in the culture space. In the culture space framework, we can pinpoint which roles we are presently assuming and what changes take place. As we have seen above, the number and variety of possible role-players and the roles themselves are limited in a given culture space. Even if we know the total range of the language variations that are possible in the culture space, we will not be able to participate in the activity unless and until we know which role(s) is available for us. This knowledge comes to us when we recognize which culture space we have just entered. Until at least some sampling of culture spaces of each of the types within a domain becomes available, we will not succeed in describing the variations of the language. In this sense, the sociolinguistic work is at the same time the investigation of the cultural knowledge of the members of a speech community.

NOTES

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[17]ibid.

[18]Lebra, Japanese Patterns, p. 113.

[19]ibid.

[20]Takao Suzuki, Kotoba to Shakai (Language and Society) (Tokyo: Chuo Koron-sha, 1975), p. 46. See also S.I. Harada "Honorifics," in Syntax and Semantics 5: Japanese Generative Grammar, ed. M. Shibatani (New York: Academic Press, 1976) and Bachnik (see Footnote 11).

[21]Harada, "Honorifics," p. 511.

[22]Saville-Troike, The Ethnography, pp. 118-119.

[23]ibid., p. 119.

[24]The dialogue is taken from Voegelin et al, "Presuppositional," pp. 335-337.

[25]Saville-Troike in her The Ethnography of Communication defines "style-shifting will refer to change in language varieties which involves changing only the code-marker; these are variable features which are associated with such social and cultural dimensions as age, sex, social class, and relationship between speakers" (p. 61).

[26]ibid., p. 62.

[27]ibid., p. 63.

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Canberra, December 1979 Bernard Comrie

PREDICATE INSTRUMENTAL AND AGREEMENT IN LITHUANIAN: A CONTRASTIVE ANALYSIS*

Johanna Nichols
University of California, Berkeley

1. This paper deals with a surface-syntactic relation, or set of relations, that is presumably universal; a morphological treatment of it that may be unique to one linguistic area; and the rules for implementing that morphology. The syntactic relation is what I will call predicate nominal, extending most traditional uses of the term. Cross-linguistically, predicate nominals tend not to have overt markings in the form of cases, adpositions, conjunctions, particles, etc.; for instance, in languages having nominal inflection they typically agree with their controllers in case. Usually there will be a few predicate nominals which are formally marked; but these are minor types of low frequency.

The Baltic and Slavic languages are distinctive in exhibiting frequent, systematic non-agreement in predicate nominals of all syntactic types. They may be unique in using the instrumental case for these non-agreeing predicate nominals. (The instrumental case in Baltic and Slavic also marks instrument, means, agent, object with certain verb classes, and various adverbials.) The morphological and syntactic congruities suggest borrowing or common origin; and the functional similarity of the Balto-Slavic[1)] predicate instrumental to the West Finnic essive and translative cases also suggests borrowing (as is supported by other grammatical and lexical evidence for areal interaction between Baltic, Slavic, and West Finnic in the early centuries of this era).[2)]

This paper has two goals. First, since predicate case usage in Lithuanian is under-described, it examines the Lithuanian facts in detail. Second, the description of Lithuanian provides the grounds for comparison with Russian. The previous literature on the Balto-Slavic predicate instrumental is hampered by its inability to judge resemblance among syntactic constructions on more solid grounds than impressionistic similarity of distribution and meaning. This paper

takes a first step toward principled comparison by giving formal content to the notion of resemblance. It asks what factors favor the use of which case, i.e. it investigates conditions on rules rather than the rules themselves or the syntactic constructions they affect. [3] On this approach distribution and meaning, which claimed the attention of earlier studies, are derivative notions: they are generalizations over the output of the rules and conditions investigated here. It will be concluded that the pattern of conditions shared by Lithuanian and Russian has interesting typological and theoretical implications, but cannot be regarded as diagnostic of borrowing until further empirical questions are answered.

This study differs from previous contributions in several respects. It analyzes only modern standard Lithuanian, and compares it to modern standard Russian. It is a field study, based almost entirely on elicitation. It distinguishes the morphological forms in question from the syntactic relations they mark. It documents use of the predicate instrumental for all syntactic types of predicate nominals, while most descriptions are limited to what I will call governed predicate nominals. It contrasts the predicate instrumental not with the nominative but with agreement in general. The analysis proceeds on two levels: that of purely grammatical description, and that of metagrammatical generalization (as these terms are defined in Nichols 1979). Its goal is to document rule conditions in detail rather than to make a single metagrammatical statement covering all uses of the predicate instrumental.

It resembles previous works in one respect: the various other morphological forms in which predicate nominals can be cloaked (prepositions, conjunctions, adverbs, the dative case, participials), many of which compete with the instrumental, are not described. These forms are assigned by different rules (although the rules are formally similar to those assigning the instrumental and agreement), rules which bleed the instrumental-agreement rule.

2. <u>Syntactic analysis</u>. The analysis used here is that of Nichols 1978,

1979. The term <u>predicate nominal</u> refers to a syntactic relation or class of relations. It includes not only complements of copulas, but also the constructions sometimes known as secondary predicates (exs. 2-4 below). The following examples illustrate predicate nominals; the predicate nominals are underlined.

(1) I'm <u>hungry</u>
He's gotten <u>older</u>

(2) He walked along <u>tired</u> and <u>hungry</u>
He returned <u>a hero</u>
He died <u>young</u>

(3) You should always weigh yourself <u>dressed</u>
Do you think you can sell that car <u>unpainted</u>?

(4) He looks preoccupied even <u>sleeping</u>
I lived there <u>as a child</u>

A predicate nominal construction consists of a controller, a verb, and the predicate nominal:

I	am	<u>hungry</u>
controller	verb	predicate nominal

he	came home	<u>drunk</u>
controller	verb	predicate nominal

they	weighed	the truck	<u>empty</u>
	verb	controller	predicate nominal

Predicate nominals fall into four types, depending on the relation to the verb. A <u>governed</u> predicate nominal (exs. 1 above) is governed by the verb: the verb semantically requires the predicate nominal, and dictates the morphological form used on the predicate nominal. (Instrumental ~ agreement is governed as a single morphological form.) A <u>constructionally bound</u> predicate nominal (exs. 2) is not lexically governed by the verb, but the combination of verb and predicate nominal is a fixed construction or stable construction type. A <u>free</u> predicate nominal is not governed by its verb, and the combination is not stable. There are two subtypes: <u>circumstantial</u> free predicate nominals (exs. 4) have a clear circumstantial force of time, condition, or concession; <u>non-circumstantial</u> types (exs. 3) lack these meanings.

The following conventions are used below in examples. The predicate nominal is underlined, both in the original and in the translation. Translations are sufficiently literal that no interlinear glosses are given. The case of the predicate nominal is indicated to the right of the example, in parentheses: n = nominative, a = accusative, d = dative, i = instrumental. (Cases other than the instrumental always represent agreement with the controller.) The following symbols are used: * = ungrammatical or entirely unacceptable; ? = dubious or of low acceptability; – = less acceptable (of two alternatives), not volunteered; no mark = fully acceptable, of neutral style, and usually volunteered in elicitation.

3. Conditioning factors for case choice. The primary determinants of case are the governed vs. constructionally bound vs. free nature of the construction itself, and the lexical class of the governing verb.

3.1. Within construction types and governing verbs, a variety of other factors are in evidence. A few of these operate across several verb classes or construction types and, since they are generally relevant, will not be mentioned individually for each construction type discussed below. They are:

Infinitive. Where the verb is an infinitive, the instrumental is more acceptable than where the verb is finite.

jis tapo	turtingas ?turtingu	(n) (i)	he became rich
jis nori tapti	?turtingas turtingu	(n)	he wants to become rich

Case of controller. The instrumental is more acceptable with an oblique controller than with a nominative one.

aš noriu būti	turtingas -turtingu	(n) (i)	I want to be rich
malonu būti	-turtingas turtingu	(d) (i)	it's pleasant to be rich

(Malonu 'it's pleasant' is inverse and takes a dative experiencer, here zero.) This factor appears relevant only for subject controllers: it ranks nominative

subjects over inverse (dative) subjects as favoring agreement. It does not predict that object controllers will favor the instrumental, relative to subject controllers; and therefore it does not predict that transitive verbs will favor the instrumental over intransitives. And in fact, with the possible exception of intransitive 'seem' vs. transitive 'consider' (discussed below), transitivity in itself does not appear to affect case preference.

Part of speech. The instrumental is more acceptable for predicate nouns than for predicate adjectives. Examples with 'become':

jis tapo	*mokytojas mokytoju	(n) (i)	he became a teacher
jis tapo	turtingas *turtingu	(n) (i)	he became rich

With 'be':

jis buvo	mokytojas mokytoju	(n) (i)	he was a teacher
jis buvo	girtas *girtu	(n) (i)	he was drunk

3.2. Governed predicate nominals. The relative acceptability of agreement vs. instrumental depends on the governing verb. (Below, intransitives are presented first, then transitives.)

būti 'be'. With finite forms, adjectives agree and nouns may either agree or be in the instrumental; infinitives and oblique controllers favor the instrumental (examples are in section 3.1). If the noun is an evaluative one like kvailys 'fool', only agreement is possible:

jis buvo	kvailys *kvailiu	(n) (i)	he was a fool

while with other nouns either case is possible, and the instrumental is volunteered first:

jis buvo	mokytojas mokytoju	(n) (i)	he was a teacher

A second semantic factor is implicit radical change of state. The instrumental is favored when 'be' implies 'become' or (especially) 'turn into', or when a property is presented as having been acquired or about to be acquired through change of state. This factor is mentioned in grammars, but could not be directly elicited. It was never offered, for instance, in explanation of a minimal pair. I suspect it is artificial, and due to the incorporation of metagrammatical generalizations (see section 5) into the normative tradition. The following pair is a typical schoolbook illustration recalled by an informant:

eina ožys per bažnyčią, norėjo kunigu būti,	(i)
eina Jonas per bažnyčią, norėjo kunigas būti	(n)

a goat went to church, he wanted to be a priest,
Jonas went to church, he wanted to be a priest

For a goat to become a priest is a radical change of state: the goat cannot simply follow a course of study and be ordained, but would have to magically turn into a priest (or at least turn into a man first).

The verbs 'become'. Both favor the instrumental, relative to 'be'. With finite forms of tapti 'become' instrumental adjectives are acceptable, though not particularly good (recall that they are unacceptable with 'be', see 3.1):

jis tapo	turtingas	(n)	he became rich
	?turtingu	(i)	

Nouns can only be in the instrumental (recall that for 'be' the nominative is also possible, see 3.1):

jis tapo	*mokytojas	(n)	he became a teacher
	mokytoju	(i)	

The infinitive favors the instrumental more strongly than does the infinitive būti 'be' (see examples of būti in 3.1):

jis norėjo tapti	?turtingas	(n)	he wants to become rich
	turtingu	(i)	

virsti 'turn into' requires the instrumental.

sniegas virsta vandeniu	(i)	snow turns into water

On the grammatical level, the instrumental is simply required by verbal government. On a metagrammatical level, however, the government pattern, and thus the instrumental, is associated with radical change of state.

The verb 'stay': likti. Agreement is obligatory for adjectives and preferred for nouns.

jis liko alkanas (n) ?alkanu (i)		he stayed hungry
problema lieka neišspręsta (n)		the problem remains unsolved
ji liko paslaitė (n) ?paslaite (i)		she remained (i.e. was left, became) an orphan

The verbs 'seem'. Nouns are in the instrumental; adjectives and participles are in the nominative.

dangus atrodė tamsus (n)		the sky seemed (i.e. looked) dark
jis apsimetė miegas (n)		he pretended (to be) sleeping
jis pasirodė kaltas (n) *kaltu (i)		he turned out (lit. 'appeared') guilty 4)

Verbs of function: 'work (as)', etc. Only nouns are possible; they are always in the instrumental. 5)

jis dirba mokytoju (i)		he works (as) a teacher

The verbs 'make', 'turn into' and 'leave'. These are transitive counterparts to 'become' and 'stay' respectively. As with the corresponding intransitives, predicate nouns are in the instrumental and adjectives agree or (with 'turn into') are in the instrumental.

karas padarė jį luošu (i)		the war made him an invalid
jis jie paliko vieną (a)		he left her alone
palikti klausimą atvirą (a)		to leave the question open (Lyberis 1962 s.v.)

Paversti 'turn into' requires the instrumental. (Again there is a metagrammatical correlation with radical change of state.)

siluma paverčia vandenį garais	(i)	heat turns water to steam (Senn 1966:429)
paversti savo kūrini gyvu	(i)	to make one's own creation (become) alive (ibid.)

The verbs 'consider'. These are transitive correspondents to 'seem'. Both nouns and adjectives are in the instrumental.

aš jį laikau kvailiu	(i)	I consider him a fool
jį laiko *kaltu / kaltu	(a) / (i)	they consider him guilty [6]
jį pripažįsta *kaltu / kaltu	(a) / (i)	they acknowledge him (to be) guilty [6]

The verbs 'hire', 'elect', etc. These are transitives to 'work (as)', etc. Only nouns are possible; they are always in the instrumental.

jis buvo paskirtas *docentas / docentu	(n) / (i)	he was appointed assistant professor
jį paėmė ikaitu	(i)	they took him hostage
pasirinko tą miestą sostine	(i)	they chose this city (as) capital

The verbs 'name', 'call'. These govern the instrumental.

saukti ką melagiu	(i)	to call someone a liar (Senn 1966: 429)
vaikeli Jonu pramINti	(i)	to name the baby Jonas (Kurschat 1876:377)

Since with these verbs the instrumental is opposed not only to agreement but also to the nominative of citation, they have not been investigated here.

3.3. Constructionally bound predicate nominals. For all examples, regardless of verb class, a single pattern holds: nouns are in the instrumental (occasionally an informant will admit agreement), and adjectives or participles agree. Examples with verbs of motion:

jis grįžo labai nepatenkintas	(n)	he returned very dissatisfied
jis grįžo didvyriu	(i)	he returned a hero
jis ėjo linksmas	(n)	he walked (along) happy

negalima vaikščioti gatvė šlapiam (d) you shouldn't walk around outside wet

(In the last example negalima 'one mustn't, it is not permitted' takes the dative, although the controller is a zero in this example. Here, in contrast to governed predicate nominals, even the inverse subject controller does not trigger the instrumental.) Example with transitive verb of motion:

milicija parvedė jį namo girtą (a) the police brought him home drunk

With 'be born', 'die':

jis gimė turtingas (n) he was born wealthy

jis gimė mokytoju (i) he is a born teacher (lit. 'he was born a teacher')

jis mirė jaunas (n) he died young

jis mirė didvyris (n) didvyriu (i) he died a hero

(In the last example the noun is evaluative and therefore the nominative is also acceptable.) Examples with 'find', 'see', etc. plus adjective or participle:

aš radau jį girtą (a) I found him (there) drunk

aš radau jį apsirengusį (a) I found him dressed

aš matau jį dirbantį (a) I saw him working

'Bury alive', another fixed expression:

palaidojo jį gyvą (a) ?gyvu (i) they buried him alive

3.4. Non-circumstantial free predicate nominals. Only agreement was accepted. (Only adjectives could be elicited.)

mašiną sveria tuščią (a) they weigh the truck empty

jis išgėrė arbatą šaltą (a) he drank the tea cold

jį užmušė miegantį (a) they killed him in his sleep (lit. 'sleeping')

3.5. Circumstantial free predicate nominals. Here there was some variation

among speakers. For the most part only agreement is possible; one informant also accepted the instrumental. [7] With nouns controlled by non-subjects, a preceding dar 'still' or other conjunction is virtually required.

jis gyveno darčia kūdikis	(n)	he lived here (as) a child
aš jį pažinojau dar vaikas	(n)	I knew him as (when I was still) a child
aš jį pažinojau dar vaiką	(a)	I knew him as (when he was still) a child

Examples from the informant who accepts the instrumental:

aš jį jaunąjį pažinojau	(a) (i)	I knew him (when he was) young
aš jį vaiku pažinojau	(i)	I knew him as a child

(The last example is ambiguous: the controller could be either aš 'I' or jį 'him'.)

3.6. Summary. The instrumental is typical only in governed and constructionally bound predicate nominals. For both types it is standard for nouns (except for evaluative nouns). For adjectives it is required only by the governing verbs 'consider' and 'turn into' (the latter both transitive and intransitive), but can also be used with 'become', 'make', and 'leave'.

4. Comparison with Russian. This section is based on the more detailed analysis of Russian predicate nominals given in Nichols 1979: Ch. 3.

For both Russian and Lithuanian, the instrumental is used most in governed constructions, less in constructionally bound ones, and least in free types. For Russian there is a major difference between governed constructions, few of which permit agreement, and non-governed (constructionally bound and free) types, in which agreement is much more common. Lithuanian, on the other hand, makes a sharp break between free constructions, in most of which the instrumental is impossible, and non-free (governed and constructionally bound) types, in which it can be used.

For Russian the group of governing verbs which permit any agreement is small: byt' and bytat' 'be', stat' and (marginally) delat'sja 'become', occasionally okazat'sja 'turn out'. For Lithuanian the group is larger, including also

'stay', 'seem', 'make', and 'leave'. In Russian, only intransitive governing verbs permit agreement; in Lithuanian, some transitives permit agreement. In one significant respect the hierarchical ranking among verbs permitting agreement is reversed: in Russian the verbs 'become' take agreement while 'stay' does not; in Lithuanian, agreement is more frequent with 'stay' than with 'become'. (In both languages, agreement is most widely used with 'be'.) Finally, for all verbs with which agreement can be used at all, it is substantially more frequent, used in more contexts, and easier to elicit for Lithuanian than for Russian. In summary, except for the reversal of 'become' and 'stay', government and construction type influence case choice in the same way in the two languages, Lithuanian being on the whole more prone to use agreement.

Where both agreement and instrumental are possible, the following factors determine case choice for Russian as for Lithuanian: oblique controller; part of speech of predicate nominal; lexical class of predicate noun; finiteness of verb. (The relevance of oblique controllers extends to non-subjects in Russian.) For both languages these are evident in many or all construction types.

A number of factors influence case choice in Russian but could not be elicited for Lithuanian. They are:

Stylistic level. A more technical, journalistic, or formal style favors the instrumental; a more colloquial style favors agreement. This is usually the first interpretation given by informants asked to choose between instrumental and agreement. For Lithuanian it was volunteered only once, with hesitation, and could not be further elicited.

Negation of the verb facilitates the instrumental in Russian:

on byl <u>durak</u>	(n)	he was a <u>fool</u>
on ne byl <u>durakom</u>	(i)	he wasn't a <u>fool</u>

This is not true of Lithuanian:

jis buvo <u>kvailys</u>	(n)	he was a <u>fool</u>
*<u>kvailiu</u>	(i)	

jis nebuvo kvailys (n) he wasn't a fool
*kvailiu (i)

One informant, on one occasion, felt that negation improved the instrumental slightly, although without making it acceptable, i.e. of the two ungrammatical sentences *jis buvo kvailiu (i) 'he was a fool' and *jis nebuvo kvailiu (i) 'he wasn't a fool' the second is somewhat better. Elsewhere, however, no such distinction could be elicited.

Covert tense-aspect factors. For Russian, contextual reading of the past tense as pluperfect ('had been', etc.) or past habitual ('used to be', etc.) significantly favors the instrumental, relative to simple past. For Lithuanian these distinctions could not be elicited.

Overt tense and mood. In Russian the future tense and marked moods favor the instrumental. This could not be elicited for Lithuanian.

Gender. For Russian, feminine singular adjectives often agree where masculines, neuters, and plurals are in the instrumental. In the following minimal pair stylistic level, tense-aspect reading, and all other factors have been held constant.

snačala mašinu vzvešivajut pustuju (a) first they weigh the truck empty
snačala gruzovik vzvešivajut pustym (i) ii.

(mašina 'truck, car', fem.; gruzovik 'truck', masc.)

For Lithuanian, no differences based on gender and number could be elicited.

Descriptive force. This is the term used in Nichols 1979 for a covert evidential category of Russian: predicate adjectives which present a scene as witnessed from the hearer's or reader's perspective, strongly favor agreement. There is no indication that descriptive force influences case choice in Lithuanian.

In addition, Russian gives evidence of a number of minor factors which influence case choice in particular contexts: coordination of adjectives favors agreement, emphatic modifiers such as takoj 'so, such a, what a...!' favor agreement, animate controllers favor agreement, certain dependents on verbs and predicate

nominals favor the instrumental. For Lithuanian, none of these could be elicited.

Implicit change of state was found to favor the instrumental, inconsistently and in few constructions, in Russian. Radical change of state has little value as a metagrammatical generalization, since the verbs 'turn into', intrans. <u>prevrat-tit'sia</u>, <u>obernut'sia</u>, etc. and trans. <u>prevratit'</u>, govern the preposition <u>v</u> 'into' plus accusative.

In summary, while Lithuanian permits the opposition of instrumental and agreement in more contexts than does Russian, Russian displays a far greater number of conditioning factors for case choice. It is interesting that all Russian informants were inclined to volunteer reasons for case choice and to rank acceptability of alternatives, while Lithuanian informants for the most part could comment only on grammaticality.

5. <u>Discussion</u>. Fraenkel (1928:199) has observed that, of all the Baltic and Slavic languages, Russian and Lithuanian most resemble each other in predicate instrumental usage. The observation is correct, but it is a generalization over outputs rather than over grammars, and therefore it only indirectly reflects the operation of rules, rule ordering, and contexts. Linguistics is now in a position to assess similarity in the grammars themselves.

Certainly in Lithuanian and Russian the surface-syntactic relations affected are the same. Presumably the rules themselves are formally identical in the two languages: both are governed rules involving a controller, a target, and assignment or copying of a case. The case assigned is the instrumental in both languages. It is among the conditions on the rules that differences arise. There are five types of conditions relevant to the contrastive analysis of Russian and Lithuanian.

The first is what Timberlake (1980a, b) has called <u>rule conditions</u> (or <u>rule features</u>). These are conditions referring to general properties of rules of the relevant form. In this instance, rule conditions include controller strength, target accessibility, governing verbs, and probably the morphemes copied. The factors shared by Russian and Lithuanian — lexical government, oblique controller,

part of speech of predicate nominal, lexical class of predicate nominal, and finiteness of verb — are rule conditions. That they are shared means only that they are present in both languages and favor the same case in both. There can still be differences in their domains of application: as noted above, the oblique-controller constraint affects only subjects in Lithuanian, but also non-subjects in Russian. There can also be differing degrees of application. An example is lexical government. Except for the reversal of 'become' and 'stay', the hierarchization of verbs according to propensity to take the instrumental is the same for the two languages, the principal difference being degree of implementation at any given stage in the hierarchy. Syntactic construction type is in some sense related to rule conditions: like rule conditions it involves syntax in a fairly straightforward fashion. The hierarchy of construction types based on frequency and acceptability of instrumental use is the same; the differences lie in degree of implementation and in relative distance between successive points on the hierarchy.

The second type of condition involves reference conditions (Timberlake 1980a) and event-axis features such as tense, mood, and perspective (Timberlake 1980b), for which I will use the generic term <u>propositional conditions</u>. These are not properties of the rule itself. All of them involve deixis, presupposition, reference, evidentiality, and other speaker-based pragmatic parameters. Implicit change of state, descriptive force, negation, covert tense-aspect, and overt tense and mood are propositional conditions. Some of the minor factors mentioned for Russian — coordination, adjunct, sentence-final position, emphatic modifier — might at first glance appear to be rule conditions, but are in fact secondary properties which follow from descriptive force.

Gender, relevant for Russian, might also appear to be a rule condition. There are two reasons for not regarding it as such, however. First, although predicate nominals agree in gender with their controllers, gender agreement and case agreement are distinct phenomena and separate rules would seem to be

involved. Second, the abbreviated label gender should not obscure the fact that it is specifically the feminine nominative and accusative singular that are preferred, as agreement, over the instrumental. Since exactly these gender-number-case forms are preferred over alternatives in other, unrelated rules throughout the history of Russian, there is reason to regard the complex of feminine nominative and accusative singular as an independent contextual condition. (See Timberlake 1975 for a meta-principle relating gender to propositional conditions on a different rule.)

The third type of condition is stylistic conditions. Only for Russian does stylistic level determine case choice.

The fourth type is processing conditions — the choice of one or another form to avoid ambiguity. Although the Russian predicate instrumental is not a general disambiguating device, it does have disambiguating functions in particular, limited contexts (Nichols 1979:§§1.4.5, 3.0). No such function was evident for Lithuanian.

The fifth type is output conditions — the choice of one or another form to avoid various stylistic infelicities. These apply on a sentence-by-sentence basis and do not lend themselves particularly well to systematization. They have not been discussed here.

These five types of conditions can be simplified into two major types: rule conditions and construction type, whose application is independent of the speaker; and propositional, stylistic, processing, and output conditions, for all of which the speaker's participation or perspective is crucial. Since rule and propositional conditions respectively are the most salient members of the two groups, those terms will be used loosely below to refer to the broader types.

Three generalizations stand out. First, rule conditions are shared by the two languages while propositional conditions are not shared. Counterinstances to this generalization are insignificant: the rule condition on animacy of controller, which is not shared, is unsystematic in Russian; the propositional condition

of implicit change of state, which may be shared, is unsystematic in Russian and suspect in Lithuanian. If gender is a rule condition (as I have claimed it is not), its absence from Lithuanian is motivated and thus no counterinstance: the behavior of gender in Russian depends on asymmetries of syncretism among paradigms, and Lithuanian lacks these asymmetries.[8)]

Second, all of the differences between the two languages involve a condition present in Russian and absent from Lithuanian.

Third, in both languages the instrumental is favored by weaker controllers and less accessible targets, while agreement is favored by stronger controllers and more accessible targets. (Cf. Comrie 1974, where the meta-principle of cohesion is found to favor agreement.)

These generalizations differ from those valued in the literature on predicate instrumentals in Lithuanian (Schleicher 1856:270-71; Kurschat 1876:367, 382-3; Potebnja 1958:478; Fraenkel 1925:90ff., 1928:202ff.; Senn 1966:384, 428ff.; Dambriūnas et al. 1966:176; and others), which tends to reduce conditioning factors to a single generalization based on (implicit) change of state or a variant based on counterfactual presupposition. In fact such a generalization does cover several of the factors mentioned here, both rule and propositional conditions. It subsumes the condition on part of speech: adjectives often denote permanent characteristics, those not susceptible to change, while the nouns used as predicates often denote social position, profession, etc., statuses susceptible to change. It accounts for verbal government, at least in part. It accounts for the use of agreement with evaluative nouns: these denote inherent, not acquired, characteristics. However, the descriptive value of such a generalization is limited: while it may provide an introductory or concluding summary of the Lithuanian conditions, it is too broad to have predictive or generative value and could not replace the individual conditions in formalization of a rule. Furthermore, it fails to account for a number of equally relevant conditions, e.g. oblique controllers and nonfinite verbs. As was stated earlier, such generalizations were

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based on outputs rather than rules or conditions. The remarks in this paragraph show that they are only partial generalizations about outputs.

6. Diachronic implications. That the rule conditions are shared while the propositional conditions are not, is a widespread phenomenon. For example, all five shared conditions, as well as construction type, also favor non-agreement in Georgian (Nichols 1977); and all are mentioned in one or another grammar of the various Slavic languages using the predicate instrumental. The propositional conditions are in general not shared by these other languages. (Implicit change of state seems to appear as a metagrammatical generalization almost everywhere.) Since Georgian is far removed from the Balto-Slavic linguistic area, we may conclude that shared rule conditions are a potential universal, or in any event certainly not diagnostic of borrowing or genetic unity. (That they are merely potential and not obligatory is shown by the fact that Finnish seems to make use of none of them.) That similar rule conditions would develop in rules of similar form is not surprising.

On the other hand, the absence of shared propositional conditions is not necessarily diagnostic of independent development of rules. Presumably these are pre-existent covert or overt categories which come to influence rules just because they are available and salient in the individual language (cf. the discussion of gender, above). This is compatible with Jakobson's position on grammatical borrowing (1962: esp. 104ff.).

I have no explanation for the virtual absence of propositional conditions in Lithuanian. If this is not an illusion created by faulty elicitation (which is unlikely, since the same techniques enabled Russian and Georgian informants to identify propositional conditions) and not a typological quirk of Lithuanian (which seems unlikely, since the language is not lacking in covert propositional and stylistic parameters), it may be of diagnostic value. It suggests empirical questions: Are more complex conditions historically conservative or innovating? geographically central or peripheral? (The literature on rule generalization and

spread engendered by P. Kiparsky 1968 is ultimately oriented toward effects on output, and cannot necessarily be invoked in connection with propositional conditions.)

In summary, there is nothing in the various conditions on the synchronic Russian and Lithuanian rules that could be pronounced diagnostic either of borrowing or of independent development, given our present state of knowledge. The most conservative claim is that shared rule conditions are a potential universal, while the appearance of propositional conditions on the predicate instrumental in Russian reflects general properties of Russian. (Timberlake 1974 documents a similar pattern of shared and language-specific features, for an unrelated rule which does involve borrowing among these same languages.)

7. Conclusions. This study has provided a description of predicate instrumental and agreement use in Lithuanian. Concentrating on rule conditions has several advantages: it permits detailed analysis of grammatical phenomena even in the absence of a clear understanding of the actual rules and how they are to be formalized; it reveals generalizations which are not impressionistic; and it permits substantive cross-linguistic comparisons. We can now make the following claims: The rule determining case in predicate nominals in Lithuanian is restricted by rule conditions and by little else. Russian and Lithuanian share the rule itself (including the specific case assigned) and the rule conditions; they do not share propositional and other speaker-oriented conditions.

The other generalizations made above should be treated as hypotheses: Rule conditions tend to be shared among languages. Propositional, etc. conditions reflect language-specific covert categories and tend not to be shared. Non-agreeing predicate nominals are favored by weaker controllers and less accessible targets. (There is support for the last point in classical Greek: see Andrews 1971:149.)

This paper was a pilot study in the contrastive analysis of modern literary languages as a source for evidence on the presence and direction of syntactic

borrowings reflecting prehistoric areal ties. The results so far are inconclusive, partly because only two languages were examined but primarily due to gaps in empirical knowledge. Future work must investigate the remaining Balto-Slavic languages and West Finnic in equal detail, and seek outside confirmation in the attested historical development of this rule and others. Meanwhile, even the pilot study has yielded interesting generalizations on the formal nature of areal resemblances.

Footnotes

* I am grateful to Professor Tomas Venclova of UCLA for most of the examples; and also to Birute Kelly, Ina Cibas, and a friend in the USSR whom I will keep anonymous. An earlier version of this paper was read at the Symposium on Baltic Linguistics, UCLA, May 1977.

1 I use the term Balto-Slavic in an areal sense, with no commitment to a Proto-Balto-Slavic linguistic unity.

2 The predicate instrumental is present in all modern Slavic languages preserving case inflection, i.e. to the exclusion of Macedonian and Bulgarian. Of the Baltic languages, it is productive in Lithuanian, evident in older Latvian (Endzelin 1923: 442; 1953; Potebnja 1958:515) but replaced in the modern language by a prepositional construction, and unknown to Old Prussian. Wherever we have historical evidence of sufficient time depth, the predicate instrumental has expanded at the expense of agreement. The near-absence of predicate instrumentals in the oldest Slavic languages (Old Church Slavic, Old Russian) and its documented gradual expansion in the individual Slavic languages, suggest that it arose in early historical or late prehistorical times. In the first Baltic (Old Lithuanian) texts, which are half a millennium more recent than the first Slavic texts, the predicate instrumental is already well established; but the later date of these documents precludes any definitive statement about the direction of borrowing. Borrowing or areal spread is claimed by Meillet 1901:422ff., Brugmann 1904:429, Vondrák 1928:288, Ivić 1954:147ff., and others; independent parallel development (with or without areal influence) is supported by Fraenkel 1925, Bernštejn 1958:21ff., Busch 1960:178, Kuzmić 1961, and others; Veenker 1967:87, 130ff. is undecided. Only Endzelin (l.c.) supports genetic unity, a solution which begs other questions. The prehistoric areal contacts involved (on phonological and archaeological evidence) Proto-East Slavic, extinct East Baltic, and undifferentiated West Finnic. For the linguistic area and its history see Gimbutas 1953, Kalima 1919, 1929, V. Kiparsky 1948, 1952, 1958, Oinas 1956, 1958, Otrębski 1958: Ch. 1, Shevelov 1954, Filin 1962:123ff., Veenker 1967, Timberlake 1974.

3 I take no stand on whether the rule in question is one of instrumental assignment, which under certain conditions fails to apply and thus leaves some contexts open for agreement; or vice versa; or a single rule assigning a weighted disjunction of agreement and instrumental.

4 There is another possibility, with participle: jis pasirodė esąs kaltas 'he turned out (to be) guilty', lit. 'he turned out being guilty' (n).

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5 One informant preferred an alternative construction with kaip 'as' and agreement.

6 A participial construction is preferred over the instrumental: jį laiko (pripažįsta) esant kalta (a), lit. 'they consider (acknowledge) him being guilty'.

7 Informants raised in this country variously offered the instrumental, kaip 'as' with agreement, and budamas 'being' with the instrumental. Apparently the construction is forgotten early in an isolated speech community.

8 Interestingly, Russian uses agreement in adjectival paradigms lacking syncretism among the nominative, accusative, and genitive cases; and Lithuanian, which uses agreement generally with adjectives, lacks such syncretism overall. In other words, for both languages agreement is used in adjectival paradigms lacking syncretism among the most common cases of agreement. This correlation may be only coincidence. It does not apply to noun paradigms.

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A Sketch of Vowel Harmony in the Tungus Languages

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1. Introduction. One of the primary areas of recent linguistic research has been the establishment of typologies. Although much has been accomplished, there is still much more to be done. One of the primary problems involved in improving typologies is the question of how fine-grained a typology should be. This is especially important in establishing typologies of vowel harmony, as the harmony can be based on different features--frontness, rounding, height, nasality, advancement of the tongue root, and still others. It is not clear whether all of these different versions of vowel harmony can be grouped together into a single type, since it has not been established that there is any more than superficial similarity between the different versions of vowel harmony.

A fertile testing ground for theories of vowel harmony is the Tungus languages. These languages, spoken primarily in Siberia, but also in Mongolia and China, form one of the branches of the Altaic family. In each of the Tungus langauges there is some evidence of vowel harmony, but the situation is more complicated and fascinating, since the details of vowel harmony differ widely from language to language. In some of the languages vowel harmony is completely productive, while in others it is found only very residually. Moreover, the parameters of vowel harmony vary over the family. Some have harmony based on height, others have a harmony that has been described as separating "soft" vowels from "hard" ones of the same height, and Manchu has been reported to possess harmony based on frontness. Some of the languages have an additional parameter of

rounding as well. Furthermore, harmony has been disrupted to varying degrees by mergers which differ from language to language. Therefore, it could contribute greatly to our understanding of vowel harmony if the dynamics of these developments were better understood.

In this paper I will demonstrate that all of these different patterns are the results of divergent developments which affected an original vowel harmony pattern in Proto-Tungus which was based on the position of the tongue root, a type of harmony previously noted only for different area of Africa. The different features on which harmony is based in modern Tungus languages arose through reanalyses of the original parameter. Other changes resulted from a combination of reanalysis, phonetically-based natural processes, and the influence of the phonological inventory of vowels. In addition I will demonstrate that different types of harmony can spring from the same source and that it is therefore reasonable to establish a parameter of vowel harmony independent of its phonetic manifestation. Furthermore, I will demonstrate that the developments witnessed in the Tungus languages provide further support for phonological cover features and the relevance of inventories as a constraining factor in phonological changes and rules.

The data for this paper have been taken primarily from the descriptions of the Tungus languages spoken in Siberia as described in Jazyki narodov SSSR, 5. A family tree of the Tungus languages discussed herein is given in Figure 1.

There are different possible instantiations of vowel harmony. Vowel harmony can serve as a constraint on lexical phonology, with certain items, especially roots, being so constrained that only certain types of

vowels can co-occur. Secondly, vowel harmony can operate as a phonological (perhaps better morphological or morphophonemic) rule requiring modifications in the vowels of affixes so that the words (stem + affixes) contain only vowels of one class. More rarely the restriction runs in the opposite direction, with the form of affix vowels affecting the form of stem vowels. Within all of the Siberian Tungus langauges there is a certain amount of vowel harmony in stems. The facts are presented in Figure 2. The different harmonic classes of vowels are divided by lines. Also found in Figure 2 is a discussion of the influence of vowel harmony on suffix form.

2. Harmony in Proto-Tungus. Even though the parameters of vowel harmony differ from one language to the next, a single type of vowel harmony can be reconstructed for the proto-language. All of the available evidence points to the presence of a type of harmony based on the relative advancement of the tongue root. Careful phonetic studies have demonstrated that this is the basis for the type of vowel harmony found in many languages of West and East Africa (Lindau 1975), which has been known by many different names in the literature--relative height harmony, category harmony, and cross-height harmony. Henceforth, vowels produced with a relatively advanced tongue root will be called ATR vowels, and those produced with a relatively retracted tongue root will be called RTR vowels.

The primary acoustic affect of advancing the tongue root is to lower the values of the first formant of a vowel. Ladefoged (1975) has demonstrated that this is generally perceived as a raising of the vowel. Moreover, advancing the tongue root also causes the front of the tongue to raise (Lindau 1975: 30), further contributing to the raising effect. Gregerson (1973) has suggested that the same phonetic mechanisms are responsible for differences in vowel quality in Mon Khmer languages of Southeast Asia.

There are no detailed instrumental phonetic analyses of Tungus languages available, at least not in the United States. Nevertheless, there is clear evidence that this type of harmony is found in Even, also known as Lamut, often considered the most conservative Tungus language. Furthermore, it can be reconstructed for the entire family. The evidence for this latter claim consists of a careful analysis of phonetic detail in various Tungus languages and restrictions on the likely directions of diachronic changes (to be discussed in sections 2.1 and 2.2).

2.1. Phonetic detail. Often phonetic detail rules provide crucial evidence for earlier forms of the phonological system of a language (Ard 1978). It is as though the establishment of a new phonological regime has not yet succeeded in pushing out certain last vestiges of the old order. Furthermore, phonetic detail is often crucial in arguing for competing synchronic analyses of phenomena within a language.

2.1.1. Even. In Even all vowels are divided into "soft" and "hard" sets. A dot placed under a vowel will henceforth denote a "hard" vowel. The most commonly reported distinction is that the "soft" vowels are relatively higher than the "hard" vowels. Novikova (1968) notes other differences as well. The "hard" vowels are drawn back, more tense, and have a lower timbre. In some eastern dialects of the language these vowels are noticeably pharyngealized. All of these parameters point to a tongue root distinction: Stewart (1967) noticed for Akan that the higher set of vowels (those that are produced with an advanced tongue root and those that correspond to Novikova's "soft" vowels) are relatively more front than the lower set. Several investigators of African languages have noted that, in contrast to most European languages, it is the lower of two vowels differing in relative height (e.g. e vs. ɛ) that is produced with greater muscular tension (Welmers 1973). Finally, a retraction of the tongue root leads to a decrease in the width of the pharynx and decreased pharynx size

is the principal articulatory component of pharyngealization. Soviet commentators have emphasized special qualities of "hard" vowels and not of "soft" ones, leading to the conclusion that "soft" vowels are produced without noticeable advancing or retracting of the tongue root, while the "hard" vowels are produced with a retracted tongue root. Therefore, it seems clear that for Even at least, the hard vowels are produced by an articulatory gesture involving the retraction of the tongue root.

Even in other languages of the family in which it is not clear that tongue root retraction is distinctive or even operative in synchronic states, phonetic detail also points to the presence of this phenomenon in earlier stages.

2.1.2. Auditory similarity between i and ɨ and u and ʉ. An opposition between i and ɨ and/or between u and ʉ is not found in every Tungus language (refer to Figure 2). In some languages the "hard" vowels have merged with the "soft" high vowels. In some languages the "hard" vowels have changed into vowels of lower height ɨ into e, ʉ into o. However, in those languages where the original opposition remains, Russian grammarians were struck by the auditory similarity of the sounds. This has been especially noted for Nanai and Orok. This same auditory confusion confronts well-trained phoneticians when first faced with high vowels differing in relative tongue root advancement in African languages (Lindau 1975). She suggests that one reason for this is that European investigators subconsciously concentrate on height (F_1), which is not the most salient difference between the two sets of vowels. The important point here is that if the salient difference were height, then it would be hard to explain why the two sets are so close together in this feature. There is a clear

tendency to maximize distinctive phonetic parameters. But, if the distinctive parameter was based on the position of the tongue, and the relative height was redundant, then there would be no paradox. This adds further support to the tongue root analysis.

2.1.3. Fronting of "soft" back rounded vowels. In most European languages with relative height distinctions (generally known as a tense/lax distinction) the tense vowels are peripheral and the lax vowels are more central. In those African languages with tongue root harmony, the situation is often quite different. In some cases the ATR vowels (which are relatively higher) are more central. As noted above, Stewart (1967) found a tendency for ATR back vowels to front. Lindau (1975: 52-53) noted that ATR o in the Umuchu variety of Igbo is noticeably fronted. In Negidal "soft" o (ö) has become fronted and centralized. The fronting of ATR o is common and phonetically expected. There is no corresponding prediction for the common European type of tense/lax distinction. Tense o's are not especially prone to front. This again is consistent with the tongue root analysis and thereby provides further support for it.

2.1.4. Differentiation between velars and uvulars. In several, but not all, Tungus languages an allophonic difference between velar and uvular consonants has arisen, with velars associated primarily with "soft" vowels and uvulars associated primarily with "hard" vowels.

In Even velars are found in words with "soft" vowels and uvulars in words with "hard" vowels. In Negidal uvulars are found in the environment of the hard vowels a, o, ɔ. and e (a more precise characterization of the environment is not available), and velars elsewhere (including the

environment of the hard vowel ɨ). In Ulč uvulars are found before a and o. In Orok uvulars are found in words with a, ʊ, and o. In Udehei uvulars are found before a and o. Summarizing these results we find that two factors contribute to the distribution. Uvulars are associated with "hard" vowels, but they are less likely to be found with front vowels, especially high front vowels. It is tempting to view this process as palatalization, with front vowels causing the consonants to be produced relatively more forward in the mouth. Vago (1973) and Odden (1978) have proposed such an analysis of the analogous phenomenon in Manchu, but this analysis is clearly mistaken. First, several of the languages (Orok, Oroč, and Udehei) do have phonetic palatalization before front vowels, but these processes take place before all front vowels, whether "hard" or "soft". Moreover, the "soft" back vowels do not cause palatalization. Vago and Odden were forced to consider the "soft" back vowels in Manchu to be underlying front vowels which triggered palatalization and were subsequently backed. Thus, true palatalizations in the Tungus languages are independent of the "softness" of a vowel. Therefore, it is impossible to explain the velar--uvular distribution by means of palatalization. It is also impossible to explain it as the residue of some earlier palatalization, for the process cannot go back very far in time. If it did, traces would be found in all Tungus languages, but the process is found in only some. Furthermore, if the process were ancient, then it would be phonetically opaque in the modern languages, since changes in vowel quality would have disturbed the original pattern, but the conditioning is phonetically transparent. It appears to be a natural process in Stampe's sense.

Since in some languages only velars are found, while in others an allophonic distribution of velars and uvulars is present, what needs to be explained is why velars developed into uvulars in certain situations. The conditioning factor depends on "hard" vowels, so the explanation must involve some phonetically-based effect of "hard" vowels on surrounding velars. The relevant effect is pharyngealization. The "hard" vowels are produced with a retracted tongue root, leading to a narrowing of the pharynx, which, in turn, is the primary articulatory component of pharyngealization. Pharyngealization can lead to the conversion of velars into uvulars, as is witnessed in Arabic, where uvulars are the emphatic, pharyngealized counterpart to velars (Jakobson 1971). Lindau (1975: 78) notes the similarity of the articulatory gestures involved in the production of RTR vowels and emphatic consonants.

Palatalization did play a role in blocking the process. In some languages the process failed to take place in the environment of some or all front vowels, especially high ones. Bhat (1974) has claimed that the higher the front vowel the more likely it is to cause palatalization. It seems that the front vowels exerted a palatalizing effect, which was strong enough in some Tungus languages to block the pharyngealizing effect of "hard" vowels. A correct account of the velar--uvular distribution requires the interplay of these two forces. There is no evidence that palatalization alone can act as an explanation.

There is no direct explanation of the distribution based on the relative height of vowels. There is no reason why uvulars would be found in the vicinity of ə but not u or o. Such a distribution of velar and uvular allophones has never been reported in a language with a simple tense/lax

distinction in vowels. Thus, the facts of the distribution of velars and uvulars provides still further support for the claim that ATR/RTR distinctions were found in all the Tungus languages and in Proto-Tungus.

2.1.5. Summary of phonetic evidence for an ATR/RTR distinction. In Even phonetic evidence indicates that an ATR/RTR distinction is operative in the present-day language. In other languages there are facts of phonetic detail which can best be explained through the presence of an ATR/RTR distinction (perhaps at earlier stages of the languages). Three different types of phonetic detail have been considered all of which point in this direction: In some languages i and ɨ and u and ʊ differ very minimally in height, a fact that is common in ATR/RTR systems but very unusual in systems based on relative height or a tense/lax distinction. In Negidal "soft" o (ø) became centralized, a development common in ATR/RTR sytems but not in systems based on relative height or a tense/lax distinction. Finally, the facts of the velar--uvular distribution in several Tungus languages require there to be a close connection between pharyngealization and "hard" vowels. Such a direct relationship obtains if the "hard" vowels are RTR vowels.

In section 2.2. it will be demonstrated that general conditions on the directions of phonological changes indicate that the ATR/RTR distinction was originally found in Proto-Tungus and not the result of later innovations.

2.2. Diachronic directionality. In some of the Tungus languages (most noticeably Even) the primary phonetic difference between the two harmonizing sets of vowels is the position of the tongue root, while in other languages relative tongue height appears to be the primary phonetic difference. The question thus arises: is it as easy for one to develop into the other, or is there an inherent directionality? I will suggest

that there is an inherent directionality from tongue root differences to relative height differences. A redundant effect of tongue root differences consists of differences in relative height, as discussed above. Moreover, some, but not all, speakers of tense/lax languages such as English use tongue root differences in producing the contrasts (Ladefoged et al. 1972). Therefore, both a system based on tongue root position and a system based simply on relative height (or tense/lax, central/peripheral, or whatever) predict differences in the articulatory and acoustic target differing in relative height, but a system based on tongue root position requires that the articulatory gesture involved must involve tongue root position, while a system based simply on relative height is neutral in this regard. In such a system speakers are free to use tongue root differences, but this is not required. Thus, a change from a tongue root system to a relative height system obtains if the articulatory gesture required for producing the relative height difference in vowel targets becomes unspecified with regard to tongue root position, while a shift in the opposite direction requires the additional stipulation that the articulatory gesture must involve tongue root position. Hence, a change from a tongue root system to a relative height system involves simplification, while the opposite change requires a complication. Unconditioned changes generally, if not always, involve simplification, or, in somewhat loose terminology, "unmarking". Therefore, it is much more likely that the original distinction was between ATR and RTR vowels.

2.3. Front-back harmony in Manchu. Recent generative treatments of vowels harmony in Manchu have described the parameter separating the

harmonizing sets to be the frontness of the vowels. This is an error which may be partially due to the orthography. There is a symbol in the Manchu orthography which is commonly transliterated e, although its phonetic value was clearly ə (Lie 1972: 48). In Manchu, as in all the Siberian Tungus langauges, a alternates with ə due to vowel harmony, but if the symbol were misinterpreted as e then the alternation would appear to be between a and e, a contrast found frequently in languages with front-back harmony. Also, the symbol typically transliterated ô apparently had a value approximating o (Lie 1972: 59). There was also a contrast between ə and o conditioned by harmony. The same contrast is found in many other Tungus languages, yet for some reason the phonetic value of this contrast has been ignored in generative treatments. A final factor in the confusion of the generative treatments is the fact that Turkic and Mongolian languages possess a type of vowel harmony based on front-back differences, and this pattern was superimposed on the distantly related Manchu by scholars unfamiliar with Tungus languages. From all indications the type of harmony in the now extinct Manchu was very similar to that found in other Tungus languages. The relevant feature for Manchu was relative height, not frontness.

3. Changes in the vowel harmony patterns. The original pattern is well preserved in Even. In other languages various modifications in the original pattern have arisen.

Most of these changes have been motivated by phonetically-based natural processes, but more abstract factors have played a role as well. An explanation of shifts in the parameter for vowel harmony depends

on the notions of targets (cf. MacNeilage 1972) and cover features (cf. Ladefoged 1972). Several of the changes were affected by the inventory of sounds through a type of pattern pressure emphasized especially by Martinet.

3.1. Changes in the parameters of harmony. As has been shown, in Proto-Tungus the basis for vowel harmony was the difference in tongue root position. Vowels which differed along this parameter differed in other phonetic features as well. As mentioned above ATR vowels are relatively higher than RTR vowels and back ATR vowels are typically relatively further forward than RTR vowels. Jacobson (1978) has suggested that a phonological cover feature is involved in the vowel harmony patterns of certain East African languages. The notion of cover feature (cf. Ladefoged 1972) was developed to account for situations in which a minimal phonological difference, which should be described by a distinctive feature, corresponds to a series of phonetic differences. Jacobson suggested that a cover feature may be directly correlated with the notion of target in speech production. Experiments in speech production (MacNeilage 1972) have indicated that there are targets in speech production which can be attained through differing tactics. Also related is the notion of a prototype, an ideal form, which has been utilized in recent models of speech perception (Oden and Massaro 1978). The changes in the parameters of vowel harmony involved a preservation of several aspects of the targets and the prototypes.

The original contrasting vowels differed in the position of the tongue root. After changes in some of the Tungus languages, different aspects of the differences in the original target values of the vowels

became emphasized. In most cases the salient difference became one of relative height. Note that it is impossible to say that the distinction shifted simply to one based on tenseness. For most vowels the tense member of a pair is higher than the lax member, but the situation is reversed for a vs. ə. In the Tungus languages ə patterns with the relatively higher vowels i and u and not with ɨ and ʉ. If tenseness were the relevant feature then i, u, and ə would not form a natural class, as required by the harmony patterns. The feature chosen must preserve relative height. In Negidal still another difference in the target values was emphasized--the relative frontness of ATR o.

Two aspects of these changes deserve particular mention. First, after the saliency of different phonetic features of the target values of the vowels changed, further differences arose, the effect of which was to increase the differentiation between the target values in the newly salient parameter. Thus, in some languages in which relative height became the salient difference, the contrast between i and ɨ was increased through a shift of ɨ to ə. An analogous change occurred for u and ʉ in some languages. These changes all increased the difference in relative height between the contrasting vowels. Such developments were blocked by the presence of an e or o from another source in the inventory. Therefore, these developments require consideration of relative height, a feature rarely considered in phonological theory. Second, these changes did not destroy vowel harmony, even though the features differentiating the harmony classes changed. This means that the phonological difference between vowels in some sense was independent of its phonetic manifestation. A phonological difference

was preserved, although the phonetic manifestation of it changed.

3.2. Additional parameters of harmony. In several Tungus languages additional parameters have come to affect the vowel harmony patterns. In several languages a limited form of rounding harmony has arisen. This chiefly affects a, which becomes o after stem-final o. To properly appreciate these developments, the inventory of sounds must be taken into account. This change was much more likely to occur in those languages in which o was not paired with another vowel in harmonic alternations. In Nanai, where o alternates with u, and in Even where o alternates with ə, no rounding harmony developed. Ulč is apparently the only language in which o is the only alternant of u and in which o also alternates with a through rounding harmony. The inventory is important in another way as well. Ultan (1973: 44) claimes that rounding harmony always affects high vowels before mid or low vowels. This putative universal is clearly violated in the Tungus languages. The explanation for this involves the inventory of sounds. It appears that rounding harmony is more likely to arise when it leads to the onset of vowel(s) that do(es) not figure in harmonic alternations.

In Negidal there is apprently another level of relative height harmony. In this language there is both an o and an ɔ. It appears that o cannot be directly followed by ɔ in a root, and that ɔ cannot be directly followed by an o.

3.3. Vowel mergers. Although Benzing has reconstructed a 2 X 4 vowel system for Proto-Tungus, most languages only witness a three-way contrast i/ɨ, u/ʉ, ə/a . Within these three sets various mergers have

taken place. Again, the patterns violate a universal suggested by Ultan (1973: 57-60), namely that mergers are more likely to involve low vowels. In the Tungus languages the most frequent merger has been between u and ʉ. This occurred absolutely in Negidal and Evenki. In several other languages the alternation between u and ʉ does not occur with as great frequency as e/a. The alternation between u and ʉ has become a variable rule. The next most common merger has been between i and ɨ, absolutely in Evenki and as a variable rule in suffixes in several other languages. There is no merger between a and ə in any Tungus language, although the alternation between a and ə has been suppressed in suffixes in Sibe, with most suffixes containing ə.

The explanation of the apparently divergent developments in the Tungus languages depends on the inventory of sounds. In all of the languages Ultan considered there is a rich vowel inventory, generally containing 2 X 5 vowels. His results do not transfer adequately to systems with 2 X 3 vowels. Perceptual separation must be considered. In rich vowel systems the target value of e is very much constrained by neighboring vowels, while in a 2 X 3 system there is more room for variation. Also notice that i and ɨ were more likely to merge in languages with an e, and u and ʉ were more likely to merge in languages with an o. Thus, it appears that it is impossible to predict where mergers will occur without considering the vowel inventories of the languages in question.

4 Implications for phonological theory.

1. A distinction between ATR and RTR vowels has previously only been reported for West and East Africa and Southeast Asia. In this paper it has been shown that such a distinction is found in the Tungus languages of

Northeastern Asia. It is found in Even and can be reconstructed for Proto-Tungus.

2. Just as in syntax, there is a notion of reanalysis in phonology. Different aspects of the target values of the vowels involved in harmony becase distinctive in various Tungus languages.

3. Even though the phonetic parameter upon which vowel harmony is based changed in several languages, the phonological parameter of vowel harmony was preserved. That is, the phonetic changes did not necessarily disrupt the phonological pattern.

4. The features needed to account for the developments found in the Tungus languages include ones rarely discussed in phonological theory. For example, it is necessary to consider relative height, which may either separate vowels traditionally described as tense vs. lax (i vs. ɨ) or vowels assigned different phonological heights (i vs. e). In general, features separating target values of vowels may be important in phonological changes, whether or not they have been considered distinctive.

5. Inventories can be very important in contraining phonological changes. The influence of inventories is generally brought about through effects of perceptual separation. Mergers are more likely [illegible] vowels are "tightly bound" by adjacent vowels. New vowels are [illegible] to arise in regions which are "relatively free" of adjacent vowels. The relatively impovrished vowel inventory of most Tungus languages (typically 2 X 3) has made some "universal" constraints on developments in vowel harmony systems inapplicable.

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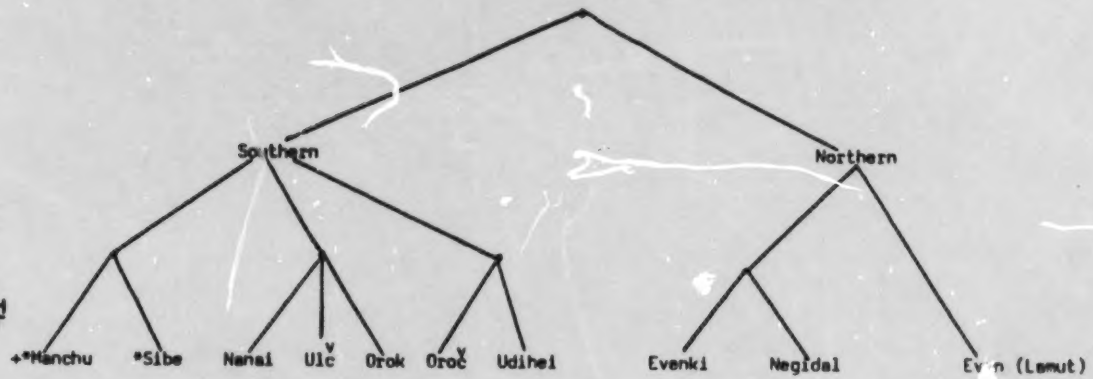
Figure 1

A Family Tree of Selected Tungus Languages



* denotes a language spoken in China

\+ denotes a language that is now extinct

NANAI

Inventory

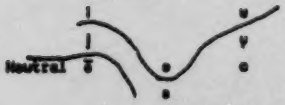
Alternations in suffixes:

a/ə u/o

Avrorin (1963) fails to mention any suffixes with an i/ɨ alternation. This may be the result of the orthography which fails to distinguish these two sounds. There is no rounding harmony.

OROK

Inventory

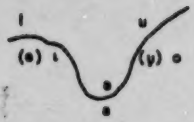


Alternations in suffixes:

a/ə i/ɨ (sometimes i/e)
u/ʉ (sometimes u/o)
The a/ə alternation is always present. The other contrasting pairs sometimes, but not always, alternate. ə sometimes, but not always, becomes ɵ after stem-final ɵ.

ULČ

Inventory



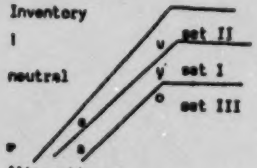
Alternations in suffixes:

a/ə u/o i/ɨ

Also ə becomes ɵ after stem-final ɵ.

OROČ

Inventory

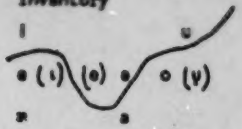


Alternations:

Within a root all vowels must be from one of these sets or a neutral vowel.
For suffixes:
If the root contains set I vowels or a single e then the suffix vowels must be from set I or a neutral vowel. If the root contains a set II vowel or a single i then the suffix vowels must be from set II or a neutral vowel. If the last vowel of the root is ɵ then the first suffix vowel must be ɵ ʉ or a neutral vowel. If ʉ or a neutral vowel is the first suffix vowel, then subsequent suffix vowels must be from set I or neutral. This is basically a typical Tungus harmony pattern with superimposed labial harmony and with certain complications due to vowel mergers.

UDIHEI

Inventory



Alternations:

Four different alternations are found: i/e u/o a/a æ/æ
Also limited rounding harmony takes place: a becomes o after stem-final o. The a/a/o alternation is more frequently found than the others. Alternations with other pairs have become variable.

NEGIDAL

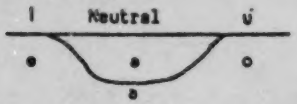
Inventory

Alternations in suffixes:

In suffixes ə alternates with ə, i with i̯. a becomes o after stem-final o. Within roots there appears to be height harmony between o and ɔ, as sequences of non-high back rounded vowels contains all o's or all ɔ's.

EVENKI

Inventory



Alternations in suffixes:

The only alternation found is between a and ə. a becomes o after stem-final o.

EVEN

Inventory

i	(ɪ)	u	soft
i̯	(i̯)	u̯	hard
e	ə	e	soft
a	ə̣	o	hard

Alternations in suffixes:

Vowel harmony is very much alive, affecting all vowels in suffixes. ə alternates with o. For all other vowels V alternates with Ṿ

UNIVERSAL AND PARTICULAR PROPERTIES OF THE EWENKI CASE SYSTEM

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1.

Ewenki is a Tungus-Manchu (henceforth T-M) language spoken over vast areas of North-East Siberia by a largely nomadic people. Not surprisingly for a language which is so thinly spread over a wide area (there are only around 24,000 Ewenkis), there is considerable dialect variation within the language, and many speakers of Ewenki are bilingual. There is, however, a considerable concentration of monolingual Ewenkis around the Podkamennaja Tunguska river, and it is this area that has formed the basis of the standard language, and whatever literary and teaching texts have been produced of recent years.

T-M, it is now generally accepted, is one branch of the Altaic family of languages, which includes also the Turkic languages and Mongolian (see Poppe 1965). The typological features of T-M are broadly similar to those of the other Altaic languages: they are agglutinating languages, each word consisting of a stem plus suffixes, which may occur in considerable numbers. Their syntax is more or less characteristic of verb-final languages - modifiers precede heads, there are postpositions (most of which are very like nouns), suffixes, a case system, and so on -

more or less a paradigm case of the SOV type of Greenberg (1963). There are, of course, differences from the Altaic norm - e.g. there is generally agreement of case, number and possession markers between attributive adjectives and head nouns, unlike Turkic.

Ewenki is normally said to have a system of eleven cases. There is a certain amount of indeterminacy in such a statement, for two reasons. Firstly, it is usual for such statements to incorporate a tacit rider to the effect that only productive and frequent morphemes are included. Ewenki, for instance, has a suffix -<u>git</u>, used in the sense of 'from the direction of'. But it is extremely rarely used. There is therefore room for disparities between different accounts of the case system. Secondly, the definition of the notion 'case' may be more or less permissive, and this will obviously affect the resultant analysis. Ewenki has a suffix -<u>nun</u>, used in a comitative sense as in (1):

(1) bu icerew kiran-ma munnukān-nun-me
we saw eagle-acc. rabbit-'nun'-acc(usative)
"We saw an eagle with a rabbit."

But, as can be seen from this example, this suffix may itself be followed by a case suffix - something which is not possible for typical case endings. The most usual solution is to exclude it from the case system on these grounds. But in the closely related T-M language Ewen the corresponding suffix -<u>n'un</u> is indistinguishable from a case, and is therefore normally recognised as such (e.g. by Novikova 1960,178).

Consequently it is imaginable that for different purposes it will be appropriate to adopt different solutions to the question of whether this is a case or not.

The eleven cases of Ewenki normally recognised (e.g. by Konstantinova 1964) are:

i. Nominative - same as the noun stem

ii. Accusative - -wa

iii. Indefinite accusative - -(i)a

iv. Dative-Locative - -dū

v. Allative -tki

vi. Locative -(du)Iā

vii. Prolative -(du)lĪ

viii. Assignative-locative -gla

ix. Ablative -duk

x. Elative -git

xi. Instrumental -t / -di

The form of some of these case endings varies under the influence of vowel harmony and the assimilation of the initial consonant to the voicing or nasality of the stem-final consonant. Not all of these 'traditional' labels are helpful - for instance the 'Locative' is used primarily to express motion to a point - but they give some idea of the range of meanings expressed by the case system. (When referring to these cases, however, I shall use their form rather than their label.) Three sets of properties, characteristic both of the Ewenki system and of that of many other languages, will provide the main focus for this article. Case systems typically serve to distinguish sel-

ectionally privileged noun phrases (primarily subjects and objects), they frequently express locational relations of various sorts, and the case forms expressing such relations invariably also express some non-spatial, abstract meanings. The specific interrelations of spatial and non-spatial meanings are virtually virgin territory as far as linguistic investigation is concerned, but they are potentially very revealing as an aspect of linguistic structure.

One of the features of interest about these aspects of the case system of Ewenki is that they are all shared to a significant degree both with the other languages of the Altaic family, and with those languages of Siberia with which speakers of Ewenki come into frequent contact. Both genetic and areal factors are thus potentially relevant to the question of how the Ewenki case system came to be as it is. Indeed, Trubeckoj (cited in Jakobson 1931) suggested that the presence of case systems correlates uniquely with geographical location: "Declension is in general a fairly rare phenomenon and is unknown to most of the languages of the world. The geographical zone of declension is fairly limited. It covers the whole of Eurasia and goes somewhat outside its limits." (Jakobson 1962.196. My translation - DAK) In fact Trubeckoj overstates his case - there exist case systems in Australian, African and Amerindian languages - but it is certainly true that the 'Eurasian' spread of case systems, from Slavonic to Eskimo, is a striking feature of such a wide area. However, while the existence of a case system seems to unite all of the lang-

uages of this area, there appear to be no internal properties of case systems, other than universal or definitional ones, which are characteristic of the whole area.

By contrast, the case systems of the languages of Siberia appear to be much more homogeneous; the number of cases in these case systems hovers around ten, while languages of the same family outside this area may have fewer. Contrast T-M Ewenki (11 cases) with Manchu (5 cases), or Turkic Jakut (9 cases) with Tatar (6 cases). Furthermore, all of these languages express unelaborated locational relations with cases, but not other types of locational relations. By 'unelaborated' I mean simple expressions of location or direction uncomplicated by the specification of the dimensionality of the location; e.g. English 'in' is elaborated, because it is applicable only to things which have a certain specific position relative to the point of orientation. The Ewenki case in -dū, on the other hand, specifies that something is located in a position relative to the point of orientation, but it does not specify that position any further (although information of this sort will usually follow from the context in which it is used). There exist many languages (e.g. Russian) in which locational relations are not at all specified within the case system (in Russian they are specified largely by prepositions), just as there exist languages (e.g. Tabasaran) in which the case system expresses elaborated locational relations of various sorts.

Another curious feature of the languages of this part of Siberia involves the expression of the agent in passive

sentences. By no means all, or even the majority, of the languages of Siberia have a passive at all; some of them are ergative languages, which frequently lack passive, while others allow passive-type constructions only without specification of the agent. But those which do have a passive with explicit agent mark the agent with the same case form as marks simple location. E.g. in Ewenki the -dū case is used:

(2) mō xergidedūn etirkēn-dū pektirēwūnin dī-p-ce
tree under old man-dū rifle his put-pass-past
'His rifle was put under the tree by the old man.'

This feature is also found in Ewen, Mongol, Itel'men (Kamchadal - an unrelated language), Xanty (Ob-Ugric) and Manchu. It is my impression that among languages which have such a long passive, the use of a locative form is something of a minority pattern. In some languages (Old Russian, French, Georgian, and many others) the case form used is the same as that which expresses the ablative: in other languages (Modern Russian, Hungarian, Quechua, etc.) it is the same as the instrumental. Whether this impression is valid or not, there is little doubt that more often than not the agent of a passive cannot be expressed by a simple locative case. For an individual language to have this pattern is not of great significance; but for a whole group of languages to use the same form in this use suggests that there must be some significant relation between them. This particular feature is clearly not determined on a genetic basis.

A similar conclusion may be drawn from the form of

objects of comparison in these languages. It is a very general property of the languages of Siberia that the object of comparison is marked with the ablative case marker - e.g. in Ewenki:

(3) amīn-mi amākā-duk-iv gugda-mar

father-my grandfather-abl-my tall-er

'My father is taller than my grandfather.'

It is true that objects of comparison are very frequently marked with the ablative in various languages of the world. But, as shown by Ultan (1972.153), while ablative markers are more frequent than any other individual type of marker in the languages he surveyed, they by no means form an absolute majority of such markers. So while it is not at all surprising that a particular language should use the ablative case marker to express object of comparison, the fact that a whole range of languages should do so, along with other points of similarity, suggests some significant relation between them. The ablative is used in this function in, among others, Eskimo, Mongolian, Sel'kup, Jakut, Manchu and Ewen. In T-M Nanaj, some dialects use the ablative in this function while others use a special comparative form which relates historically to the ablative. Orok uses an instrumental form for this purpose, but, as we shall see, there are special factors relative to the use of the ablative in Orok. In brief, there is an overwhelming preponderance of this construction in the languages of Siberia.

Such a list of similarities could be continued, including perhaps some of the striking typological similar-

ities between the languages I have mentioned. These range from their basically SOV syntax to the existence of possessive endings on nouns which merge in complex ways with case endings. But I think enough has been said to demonstrate that there is something to be explained in the geographical spread of these features of the various case systems.

Most of the features I have discussed with reference to the languages of Siberia could also be applied to the Altaic languages, whose typological unity is perhaps more obvious than their common origin. But there seems to be little which is uniquely Altaic about the case system of Ewenki - perhaps only the nominative-accusative organisation of the case system is not also shared with all of the other languages of Siberia. But the more immediate affiliation to T-M is a different matter. In the first place, the form of the case markers is instantly recognisable across the T-M languages. But there are also semantic features which are not shared with neighbouring languages. For instance, most of the T-M languages have distinct case forms to refer to motion to a point (Ew. -(du)lɪ) and motion towards a point (Ew. -tki). Similarly, many of them have distinct case forms for motion from (Ew. -duk) and motion through (Ew. -(du)lɪ). Neither of these features is shared by all of the neighbouring languages.

2.

I have mentioned some specific features of the Ewenki case system which it shares with a number of other lang-

uages. It would, of course, be interesting to be able to attribute those shared properties to areal or genetic factors, but there are several alternative possibilities which would need to be eliminated first. It is clear, for instance, that none of the properties mentioned as characteristic of T-M or Siberia is universal in the most basic sense of that term - i.e. that all languages share that feature. This conclusion would follow at least from the fact that not all languages have case systems, but there are probably few properties which are characteristic even of all languages with case systems.

Many fairly specific properties of case-marking systems are so little understood that it is premature to start talking about universal properties as yet. For instance, the question of what counts as a single relation is anything but clear; partitive constructions (of the type 'one of them') are very frequently marked with the same case form as the ablative. This has led some linguists (e.g. Anderson 1971) to refer to both of these relations simply as 'ablative'. But on what basis does one refer to two different relations as two tokens of the same type? It is not even clear that the question is a meaningful one. But at the same time, such a regular correspondence cannot merely be the work of chance: it is surely legitimate to recognise such a phenomenon as something which needs to be dealt with by an explanatory linguistic theory.

If features of the Ewenki case system are not universal

in the strong sense, then it follows that such areal and genetic correspondences as exist result from historical factors of some sort (not necessarily recoverable by linguistic investigation.) But this would only exclude the formulation of universals if each of these factors had to be considered entirely separately from all of the others. If not, it is possible that there might be implicational universals which relate the various properties of the case system with each other and with general properties of the language. It is incidentally interesting in this connection to note that there are different consequences for this sort of exercise from different types of universal statement. If the universal is nothing but a generalisation from observed data, then strictly speaking nothing follows from it as to the form of any language. It would be somewhat anomalous to make statements implying that languages cannot be such as the investigator has not met. It is only when the universal is backed up by some sort of demonstration of its 'naturalness' that we can talk of languages having a particular form by virtue of the universal principle. Of course, the two conceptions of universal are related in that many linguists believe the first to be a step on the way to the second (or sometimes vice versa); a purely observed generalisation about a universal property is backed up by the belief that such a thing must have underlying it an explanatory principle that it is the linguist's job to discover.

Greenberg's universal (1963.113) to the effect that verb-final languages almost always have case systems is

one principle which provides a relationship between two areas of the grammatical system; it is, of course, a purely observational generalisation. But this is hardly the most interesting aspect of the phenomena we have looked at so far. I have found, in work currently in progress, that there appear to be a whole range of interesting implicational relationships between areas of case systems. These relate numbers of cases to the sort of relationships expressed, to the existence of competing case-marking systems of various types (prepositions, postpositions, serial verbs and so on), and they relate the expression of individual case relations to the expression of other case relations. Some such principles particularly relevant to Ewenki are:

i. Any case system with over a certain number of cases in it (probably somewhere around seven) will express locational relations with case forms. (But not vice versa - e.g. Russian has six cases to the five of Manchu, but only the latter expresses location in its case system in a systematic way.)

ii. If only some locational relations are expressed in a case system, they will always include simple location. Next most likely will be allative, then ablative, then prolative. Note that this does not imply that a system in which only two cases express locational concepts will necessarily have a locative and an allative case: two relations may be expressed in a single form. In Manchu, for instance, one case expresses locative and allative, and another expresses ablative.

iii. The most common syncretisms of case relations in a single form include: ablative - prolative
locative - allative
ablative - partitive

This list could be prolonged considerably; but there are likely to be more revealing principles to be discovered as to the permissible range of expression of single forms under different conditions.

These principles in fact fit into a rather larger generalisation relating types of expression and types of case relation. Means of expression - such things as word order, coding in verb morphology, case endings, prepositions, and so on - may be arranged on a scale from grammatical to lexical. This corresponds roughly to the number of members that there are in any one of these systems. Types of relation seem to fit on a parallel hierarchy of centrality - subject-object relations are more central than locative relations, locatives are more central than ablatives, and so on. In a considerably oversimplified account, it is possible to say that the two hierarchies will correspond - a relation that is higher on its hierarchy than another one will not be expressed lower down on the expression hierarchy. There are all sorts of complicating factors here, but at least for the simpler relations I shall consider here, the generalisation seems to hold for a lot of languages.

It becomes rather clearer as a result of this sort of consideration why a group of languages should have a whole

range of properties in common rather than isolated single features. As I have noted, it provides no account of why a geographical grouping, for instance, should possess any such common feature. Although it is theoretically possible that a language with eleven case forms should express elaborated locational relations, when looked at in terms of a hierarchy of relations, such elaborated locatives would have less 'priority' than a whole set of other relations, and therefore it would be unlikely for such relations to be expressed in an eleven-member case system. Conversely, such a system would be more capable of giving separate expression to the basic locative relations than, say, a six-case system.

3.

More detailed investigation of the system of expression of spatial relations in Ewenki will illustrate the above discussion in a more satisfactory way As shown above, Ewenki has four case forms distributed over the four 'basic' locative meanings, and one (two if the very rare elative is taken into consideration) expressing direction of motion:

(4) bira-dū Duškan-dū bidjeren
river-dū D-dū it-is
'It is on the river Dushkan'

(5) bi mū-lē ejem
I water-lā I-went
'I went into the water'

(6) bi djū-duk-pi jūm
I house-duk-my left-I

'I went out of my house.'

(7) poest ōmakta-lī tigdilēn-dulī ŋeneren
train new-lī bridge-dulī went
'The train went across the new bridge'

(8) bi xokto-tki tuxsasinim
I road-tki ran
'I ran towards the road.'

As might be expected on general grounds, things are not quite so simple across a wider range of locative expressions. The -dū case is also used to express the end point of motion:

(9) kalan dō-dū-n ulle-we nēce
pot inside-du-its meat-acc. she-put
'She put meat into the pot.'

(10) ukkallu temu-dū
sit-imp. raft-dū
'Sit on the raft'

This use of the -dū case is in fact rather rare in 'standard' dialects of Ewenki (henceforth SE), and its use appears to be limited in two ways. On the one hand it is very frequently used with spatial postpositions, as in (9), and these postpositions do not appear to be used with the case in -lā in SE. Examples may be found in dialects, however; e.g. from the Učur dialect of Jakutija:

11. bi er kadar ojo-lō-n tuktivukte
I that cliff top-lā-its I-shall-lift
'I shall lift (you) up to the top of that cliff'

The other restriction seems to be that their use is limited to certain verbs in which the emphasis is laid on the final position resulting from the motion, rather than on the motion itself - e.g. (10). The same sort of thing can be observed in English, where a preposition such as at cannot be used to mark the end point of motion with most verbs of motion (*He went at the top), but it may be used with a verb such as put (They put it at the top). It is not always clear in Ewenki whether examples of this sort are to be analysed as expressing motion, or whether they may simply be interpreted as expressing the state resulting from motion, in which case the -lā ending would be inappropriate anyway. There is also an element of idiosyncratic verb government here as well: for instance, the verb nē- ('put') consistently occurs with the -dū case, both in normal use (as in (12)) and in phraseological combinations (dunne-dū nē- means 'to bury', 'put in the ground'):

(12) nēkel čajnik-pa peču-dū
put-imp kettle-acc stove-dū
'Put the kettle on the stove'

What is clear is that in SE, the use of -dū to express the end point of motion is very rare, and when it does occur it is rather marginal as an expression of that meaning. Nevertheless this use of the case form clearly acts as a potential base for the expansion of the function of this case. Such expansion is found in several dialects of Ewenki. (Data from the dialects of Jakutija is taken from Romanova and Myreeva 1962, 1964 and 1971) The Učur dialect, for

instance, uses -dū more frequently in this function. Within the restrictions imposed by SE, examples of -dū are more frequent in Ucur. E.g. with spatial postpositions:

(13) koŋnorīkān xakindi dulkākin-dū-n n'urwi katad'alim
black liver middle-dū-its arrow-my will-go
'My arrow will plunge into the middle of your black liver.'

(14) bagdarin meŋun ostolbi daγa-dū-n teγewren
white silver table near-dū-its (she)-sat-(him)
'She sat him down at a silver table'

And with the verb nē-:

(15) d'ulē-dū-wi nēren
front-dū-his (he)-put-(it)
'He put it in front of himself'

With another verb, describing much the same sort of action, -lē is used:

(16) d'ulē-lē-wi garadēran
'He threw it in front of himself.'

It is interesting that with this set of forms, the distinction between motion to a point and motion towards a point is not consistently maintained in this dialect - e.g. (17) is very similar to (13) in form, but the context makes it entirely clear that the arrow did not hit its target:

(17) n'urin kuγunāxincaran, Kokoldokōn xakinin
arrow-his whistled K. liver-his
dulkākindūn emed'eren
middle-dū-its aiming
'The arrow sped, aiming at the middle of Kokol-

dokon's liver.'

But there are other uses of the form in -dū which do not fit within the restrictions I have specified in relation to SE:

(18) sōr ... umūn irēkte-dū dōran
crow one larch-dū descended
'The crow came down on a larch'

(19) kurē-dū oror d'alumkākī Ixincere
corral-dū reindeer overfull went-in
'The reindeer crowded into the corral'

(19) contrasts with (20), which uses -lā with the same noun:

(20) umūn timanī-dū kurē-lē-wi jūksēkēn
one morning-dū corral-lā-her she-went
'One morning she went into her corral.'

In Tommot, another of the dialects of Jakutija, this extension has been carried even further, so that -dū seems to be usable for any expression of motion to a point, even the most general:

(21) egdēn-dū xuruwcō
tajga-dū (he)-took-(him)
'He took him into the tajga (forest).'

(22) ŋamŋa-dū emexe ...
Amga-dū arrive-part
'Having come to the Amga ...'

(23) buɣawar emēnixē, emerīwun ewenkī-l-dū
land having-left we-came Ewenki-pl-dū
'We left our native country and came to the Ewenkis'

The -lā form is still used in this dialect, but apparently less frequently than -dū; from the data available it is difficult to escape the conclusion that the -dū form is taking over the function of end point of motion, although the process is not complete.

This change towards identifying the expression of simple location and end point of motion may be related to a number of factors. I have mentioned, for instance, the fact that the situation in SE (which also holds for most of the dialects of Jakutija) includes a number of marginal cases of this use of -dū, which might serve as a basis for such a change. Another factor of relevance is that Jakut, which has had a great deal of influence on many dialects of Ewenki (Romanova, Myreeva & Baraškov 1975), has a single case form for location and end point of motion (Ubrjatova 1950).

A third factor of relevance is that the syncretism of these two case relations is one of the most common to be found in the languages of the world. Of course, if this remained merely an observed correlation, then it could hardly be invoked as an enabling factor in this change. In fact it is not difficult to see a natural principle at work here, which relates locative and allative, just as it relates ablative and prolative. It is to be presumed that one typical use of a locative is to give information about the location of something. But the information which is explicitly given by a locative may also be deduced from

a statement of motion to a point. To put it another way, a state (of location, in this instance) may be specified either directly, or via the mediation of a transition to that state. By contrast, the position resulting from motion from or through a point is specified only negatively by the ablative or prolative: to state that someone left a certain location, or went through that location, gives the information that their consequent location was elsewhere, but it is no more specific than that. On grounds such as this, it might be expected that the choice of locative or allative might not at all times be highly distinctive, while it is unlikely that, say, the locative and ablative would be similarly confusable.

Such an account, I claim, provides a relatively natural reason for the syncretism of locative and allative means of expression. In this way, it may also be used to motivate the change to such a situation from one where the two relations are expressed by different forms. But it goes further than that in that it correlates quite closely with the apparent development of -dū in Ewenki stage by stage. In SE, the allative use of -dū is only found with spatial postpositions and with certain verbs. In both instances it seems there are grounds for saying that the point of the use of such forms is in describing the final position of the object in that location: if the emphasis were on the motion itself there would be less point in giving an exact specification of the position which resulted. Curiously enough, the situation in Ucur

is very little different from this in general terms: in all of the uses of -dū, the emphasis is clearly put on the final position resulting from motion. The difference between Učur and SE is that the latter imposes a formal restriction - use with postpositions and with a small number of verbs - while in Učur the same general principle is extended to cover more verbs, or verbs in general. The fact that this general restriction - that -dū should be used where the important point to convey is final position rather than the motion itself is confirmed by the following fact; whenever any journey of any significance is being described in an Učur text, -lā is always used for the end point of that motion. Texts contain dozens of sentences of the type:

(24) sū d'ūkrē buya-lā-war mucūkaldu
you both (home-)land-lā-refl. return-imp.
'You both return home.'

Such a distinction may not always be entirely clear in individual cases, but the overall tendency is unmistakable.

This discussion, I hope, shows how a universal principle can motivate a change and direct in specific ways the development of competing forms. It cannot, of course, initiate such a change, otherwise all languages with case systems would combine exactly the same relations in the same number of forms. It may be at this point that the external influence from Jakut comes in. Many speakers of both Učur and Tommot are bilingual, with Jakut as their other language. It is not at all unlikely that a speaker of two languages might allow certain case syncretisms of the one to encroach

on the case system of the other. I suspect, however, that two conditions at least would need to be met before such encroachment could take place: on the one hand, the syncretism ought to be 'natural', in the sense I have just tried to outline, and on the other, the affected cases in the receiving language should be isolated from the rest of the grammatical system, in a way I shall try to make plain.

If 'unnatural' borrowings are excluded, it is not likely that examples of them will be found. I shall illustrate the point from a rather different example. Orok, which is a T-M language rather different from Ewenki (Petrova 1967), shows clear signs of having lost some of the ablative form, presumably by phonetic attrition. While reflexive possessive endings following the ablative case form still maintain it in the form of -duk-, in other uses the final k is lost. This, of course, renders it the same as the locative case form -du, which is similar (at least in its spatial uses) to the corresponding form in Ewenki. And there are indeed ambiguities between the locative and ablative in Orok - e.g. xai-du can mean both 'where' and 'whence', 'from where'. But with nouns in general, a distinct form of the ablative case has been regenerated with the help of the suffix -d'e, meaning 'direction' or 'place in a direction'. The locative of apun 'hat' is therefore apundu, and its ablative apund'edu.

It is striking that a very similar phenomenon is found in Balto-Fennic (Hämäläinen 1960). In South Karelian and Veps, phonetic erosion of a relatively simple kind has ren-

dered identical the adessive and the ablative, and the inessive and the elative. The non-spatial functions of the original ablative and elative cases remain unaffected, and are expressed in the new combined case forms. But the spatial functions of the ablative and the elative are taken over by a newly-introduced postposition päi. Thus, in both Orok and in Balto-Fennic, merging of locative and ablative is followed by remedial action, and in both cases it is the ablative (presumably as the more marked case) which has the remedial action applied to it. I take this to be evidence that 'unnatural' syncretisms will invariably be met with remedial action; it cannot, of course, demonstrate that a language will not borrow in such an event, but it does at least render it rather unlikely.

The condition that uses of cases should be isolated from the rest of the grammatical system may be illustrated, in a purely negative way, from the case systems of Ewenki and Jakut. Both of these languages have alternative ways of expressing the direct object, and in both instances the distinction has something to do with the definiteness of the direct object. This can be illustrated most clearly from Ewenki, where the 'indefinite accusative' and the 'accusative' may contrast in terms of their definiteness:

(25) mōkār-e gennekel, taduk mōkār-we edū nēkel
sticks-IAcc fetch-imp then sticks-Acc here put-imp.
'Fetch some sticks and then put them here.'

But the distinction is not rigorously maintained in Ewenki,

and there are indefinite objects which are marked with the normal accusative case: e.g. (26) is used in a narration in such a way that it is clear that the object is indefinite (the example is from Kolesnikova 1966.233):

(26) kulikān-me bakam
bear Acc I-met
'I met a bear.'

The indefinite accusative is often used in the more specific sense that the object is destined for someone, and this person is interestingly enough marked with a possessive suffix on the object:

(27) temu-je-w ōkal
raft-IAcc-my make-imp
'Make me a raft.'

In Jakut the situation is rather clearer; unlike other Turkic languages, Jakut does not use the basic case form (which also functions as subject -case and is not given any morphological mark) as a marker of indefinite objects. Instead, this case form is used for direct objects which form a semantic unit with the verb, and which have no independent reference: Ubrjatova (1950) glosses a minimal pair thus:

(28) uu-nu basta
water-acc (he) drew
'He drew water'

(29) uu basta
'He engaged in water-drawing.'

There are also syntactic consequences of this distinction.

The direct object in the basic case must always occur next to the verb, it may not be modified by an adjective, nor does it take plural or possessive suffixes. In most respects, in fact, such a direct object bears a very close resemblance to the incorporated direct objects found in various Amerindian languages, and in Chukchee (cf. Comrie 1973 for an outline of this sort of construction). In Chukchee, the object can be shown to be incorporated in the verb as a single word by the fact that vowel harmony operates across the whole complex. In Jakut, this is not so - vowel harmony has as its domain the direct object and the verb separately. But it seems reasonable to claim that such phonological processes follow on from the more basic grammatical processes determining the nature of incorporated constructions, rather than being defining properties of such constructions. At any rate, Jakut provides a plausible model for the development of such incorporating constructions.

It might be expected, given the closeness of these two systems of cases expressing the direct object, that there would be some influence of one system on another in the use of the indefinite accusative or basic case form. Such influence is not apparent in the Ewenki dialects of Jakutija. There is no discernible difference in the use of the indefinite accusative in any of these dialects or in SE. On closer inspection, this is not surprising: even if there was a measure of borrowing of the Jakut usage, this would be difficult to discern - there is not a great deal of difference

between fetching water and water-fetching. (This is not simply a question of lack of data - in the abstract this is probably not a distinction which would be recognised by a native speaker.) The reason that the distinction is recognisable in Jakut is that it is consistently carried through all of the uses of the basic case as direct object, and that the grammatical restrictions apply. If, for example, such a direct object allowed the plural ending, not only would the nature of the construction become less clear to the analyst, it would also become less clear to the native speaker, because by allowing a singular-plural opposition in the object position, it would thereby be admitting the possibility that the direct object could be individual - something which would contradict the condition that the direct object have no independent reference. From considerations of this general nature it is clear that, were a dialect of Ewenki to borrow this use of the basic case in Jakut, various other aspects of Ewenki grammatical structure would need to be changed also. This is what I mean by the change not being isolated; such a potential change is unlikely (relative to other possible changes - I assume that any type of change is unlikely in absolute terms), if only because it would demand considerable restructuring of the grammatical system.

There are other examples of variation in usage of cases across the Ewenki dialects which illustrate the general thesis I have been putting forward about possible influences

of neighbouring languages on each other, while at the same time showing the complexity of patterning which may well make it impossible to produce an adequate reconstruction of the processes involved. One such example is the expression of the addressee of verbs of speech in Ewenki. SE uses the accusative case for this:

(30) atirkān gūnen beiel-we, djulān īdetin.
old-woman said men-acc house-la-her go-in
'The old woman told the men to go into the house.'

(31) atākātin ewenkīl-we gūnen ...
grandfather-their Ewenkis-acc said ...
'Their grandfather said to the Ewenkis ...'

Učur uses -tki, which normally expresses direction towards a point, for the addressee phrase with the same verb:

(32) Kristos irgicī-tki gūnen ...
Christ wolf-tki said
'Christ said to the wolf ... '

Tommot, and also the dialects of Totta and Tokko, use -dū in the same function:

(33) aminmi min-dū gūnen ...
father-my me-dū said
'My father said to me ... '

In contrast to the example of the spatial use of -dū, the historical development of these forms, and the question of which of them reflect earlier states, are quite unclear. It may even be unhelpful to look at it in those terms - one of the features which emerges most clearly from a survey of texts, especially those of a linguistically fairly con-

servative nature, such as folklore, is that the frequency of addressee phrases is extraordinarily low, even though there are many suitable circumstances for such phrases to be used. Instead of 'x said to y', such texts say 'x came up to y and said', or use even more complex formulae. In one hundred-page folk tale in the Učur dialect, there is not one single direct expression of an addressee. Clearly from such evidence there is little to choose between the suggestion that addressees have developed as a special category only recently, and the alternative that they have always been used, though only in certain styles. The variety of their expression in different dialects lends a certain amount of support to the former hypothesis. However, whichever of these alternatives is correct, the important fact in the present context is that the dialects of Jakutija use forms for the addressee which are similar to those used in Jakut, where the case expressing locative and allative spatial relations also expresses addressee. Like the syncretism of locative and allative, this syncretism is a very common one throughout the languages of the world. But it is also very common for direct objects to express a wide range of semantic relations, and the use of a direct object form as addressee is far from unique. Say and tell in English illustrate the two different possibilities. The use of -tki in Učur remains something of an anomaly; but the difference between (13) and (17) above has already been cited as evidence for the poor differentiation of motion to and motion towards in that dialect. The same considerations may apply here.

4.

In the preceding sections of this article I have tried to illustrate some of the complexities hidden in even relatively simple phenomena of the Ewenki case system. The examples I have used are, of course, only a small sample of those which could have been brought up to illustrate the same point. It would be naive to assume that the factors involved in the formation of such a case system could be recovered in their entirety, or even in enough detail to show that one case system is much more likely than another. Nevertheless, the universal features of case systems in general are sufficiently impressive for it to be worthwhile looking for some general principles behind all the apparent surface diversity.

The sorts of conclusions which can be drawn are very tentative, to say the least. But in spite of such substantial works as Hjelmslev 1935-7, the dynamics of case systems remain extremely mysterious. Most recent work on case systems, with the exception of work on the expression of subjects and objects, appears to operate on a strictly descriptive basis, giving the impression that a search for explanatory principles or general mechanisms would simply be inappropriate to such an area. I think it is time to resume the search for general principles governing the structure of case systems. There is no point in expecting a general theory to be developed when it is not even clear that there is a coherent subject matter for such a theory. Establishing this is bound to be problematic enough.

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ON THE PENUMBRA OF QUESTIONS SURROUNDING THE INTERNAL RECONSTRUCTION OF GILYAK

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Gilyak (also nivkh [ñifx], at the mouth of the Amur and on Sakhalin, ca. 4,000 speakers) is an isolate, a language that is not related to any other language. In order to recapture its past we can therefore not employ the comparative method and must resort to interdialectal comparison, to a painstaking evaluation of loanwords from currently and formerly adjacent languages, and to internal reconstruction. Internal reconstruction, in turn, once interdialectal comparison has been used for all it is worth, is based on husbanding all the cues and clues that can be raked up from all levels of grammar and from an understanding of the culture of the individuals who speak/spoke it. It requires imagination and daring and is therefore fraught with perils. The rewards, if any, are commensurate with the investment.

I have been thinking about this task ever since I did fieldwork in this language in Abashiri, Hokkaidô, in 1954 and 1956-57. My main informant was a speaker of the South-Sakhalin dialect (gS), as distinct from the Amur dialect (gA) which is fully reported on in recent Soviet sources. Unless otherwise indicated, I will use my own materials (gS). I have reason to believe that my dialect (which differs somewhat from the Sakhalin dialect in the Soviet sources) is conservative in many important respects. This should be a boon to the internal reconstructionist.

In the interest of saving space, I will reduce apparatus to a minimum but assume that the reader is interested in the maximum in basic information about the language.

1. Initial obstruents alternate: ku 'arrow' : ñ--xu 'my arrow',

ǵaq xu- 'has been inserted into the cradle (ǵaq)' : daf ku- 'has been inserted into the house (daf)', als pe- 'fetch berries' : iřkyt fe- 'id.'. The conditions which govern these alternations are amply spelled out in the literature and need not detain us. As in Celtic and in Fula (Peul, Africa), both stops and corres nding fricatives go back to stops. Thus, qa 'name' : x̌a-w- 'call N by his/a name' are related; -w- is a transitivizer and initial x̌- can be thought of as coming from 'j--x̌... (which, in turn, is from 'j--q...), where j-- is the 3rd-person preposed pronominal marker; cf. ñ--xu 'my arrow'; 2nd-sg. c--xu 'thy arrow', c--x̌a 'thy name'; j--x̌a 'her name', j--xu 'his arrow'. Synoptic inventory:

	1	2	3	4	5						
Obstruents:	p	t	c	k	q	I	Others:	m	n	ñ	ŋ
	b	d	ǵ	g	ǧ	II		w	l	j	h
	f	F	s	x	x̌	III	Vowels:	i	y	u	
	v	r	z	y	ǰ	IV		e	a	o	

TABLE I: Stops in row I alternate with fricatives in row III; row II alternates with IV. Stops in row I are voiceless-aspirated; in II unaspirated and generally also voiceless. c and ǵ are hushing-palatalized. Column 5: post-velars. ñ = palatal; j = iod-glide; y = high-back-unrounded.

2. Only exceptionally do nouns have fricative initials in absolute initial position. The barnyard fowl is called peq. This domestic fowl is not native to the area and the Gilyak are not chicken breeders by any means; the few temperate-zone domestic animals other than the dog for which they have names are of foreign origin: kysk 'cat' (Russian); ex̌aŋ 'cattle', murŋ 'horse', olǰoŋ 'pig', x̌oñ 'sheep' (one or another kind of Altaic). Where are we to seek the origin of such a pithy form as peq? In the transitive verb fe- 'gather, pick'. Why? Because it is the characteristic feature of the animal which the culture has selected to identify it. The initial p- in the noun corresponds to initial f- in the transitive verb in consonance with the

rules. The final -q of peq is difficult to sever synchronically but velar and postvelar stops and fricatives are so frequent in final position in nouns that there is no doubt about their erstwhile nominalizing (including diminutivizing) function: dank 'hand', axx 'mouth', oq 'garment', caẍ 'water'; note also: the vocatives ytà = ytkà 'father', ymà = ymkà 'mother'. Summary: peq 'chicken' is from fe- 'pick', nominalized by means of q.

3. The language is very rich in clusters, e.g.,

mryw	Caltha fistulosa	NF-	
cfyx	Linguticum Hulteni	QF-	
tfiřk	Symplocarpus renifolius	QF-,	-FQ
kmirŋ	Rosa acicularis	QN-,	-FN
nlasř	Artemisia montana	NR-,	-FF
ǵaqf	Cornus suecicum		-QF
mecq	a bush, unidentified		-QQ
doqs	Lespedeza bicolor		-QF
ǵařq	Fritillaria kamcatkensis		-FQ
tusk	Picea jezoensis		-FQ
aẍs	Petasites japonicus		-FF
ǵirx	Corydalis ambigua		-FF
wezl	Anthriscus nemorosa		-FR
kyzm	Taxus cuspidata		-FN
ǵemř	Ribes sachalinensis Nakai		-NF
hilm	Trillium kamcaticum		-RN
nanŋ	Veratrum grandifolium		-NN
ǵaŋfq	a tree-fungus, unidentified		-NFQ
muskř	a kind of willow		-FQF
daŋfŋ	Allium victoriale		-NFN

TABLE II: Initial and final clusters, from plant terminology. Symbols: N nasal, F fricative, Q stop, R resonant.

I have chosen exclusively plant names for Table II so as to dramatize the frequency of clusters within a restricted lexical category.

If all fricatives can be traced to original stops, then the initial cluster in cẍař 'tree, wood' ought to be dissoluble into a sequence of two original stops. What governs the fricativization of ẍ in cẍař, for example? The following canon: (1) nouns cannot begin with a fricative; hence initial c and not its corresponding fricative, s.

(2) Initial-prevocalic clusters in nouns must be sequences of fortis consonants (rows I and III in Table I). The sequences *ɟẅa..., *ɟÿa..., or *cÿa are impossible in the present-day language, but, impelled by the principle of exhaustiveness, we assume that all four possible permutations,

1	cẅa...	<	cẅa...	<	*cq...
2	cẅa...	<	*ɟẅa...	<	*ɟqa...
3	cẅa...	<	*cÿa...	<	*cẅa...
4	cẅa...	<	*ɟÿa...	<	*ɟẅa...,

were equally feasible at some point in the past and that all four gave present-day cẅa... as in cẅař 'tree'. In order to select the most promising of these four permutations, we must examine the nominal stem in a setting in which the initial cluster is no longer initial. Such a setting is provided by the possessive morphemes. In the first person singular we have both ňe--sÿař and ňe--zÿař 'my tree' (with both s and z corresponding to word-initial c), in free variation. The ÿ of both these forms suggests an original *ẅ (Table I, column 5, rows II and IV). We can therefore eliminate permutations 1 and 2 above (those in which ẅ < q after the initial c...) and reckon with an original *ẅ.

However, the two forms for 'my tree' cited above do not tell us whether the original initial stop was a *c, as --sÿař would suggest, or *ɟ, as --zÿař would suggest. It was *ɟ, because the form in the Amur dialect (gA) which corresponds to our (gS) cẅař is ɟiyr. In gA ɟiyr the original *ɟ is allowed to survive because it is protected by the immediately following vowel i. We can now reconstruct the word for 'tree' as *ɟVgVdV, where V stands for true or epenthetic vowels and *d is assumed (on other grounds) to have developed into the fricative r which always appears as ř in final position in gS.

We will not try to solve the problems posed by the vocalism of the

word. Instead, we will list some further problems connected with it. Note that gA ɟiɣr suggests an earlier *g (column 4, Table I), whereas gS suggests an earlier *ǧ (column 5). Note also the correspondence gA i : gS a. These two correspondences are connected and imply that *g and *ǧ must have one source, one in which *g is connected with a front (and high) vowel (i) and *ǧ with a back (and low) vowel (a). We will not pursue this line of thought at this point and, instead, pose a question: what have we accomplished by reconstructing the word for 'tree' up to this point? Nothing much, unless we can integrate our reconstruction of this one word into a larger network of reconstructions. This is possible by setting up the following presumed word-family:

1	ǧalmř	board (folklore: qalŋř)
2	ǧarř	spine (anat.)
3	ǧaq	(wooden) memorial tablet
4	cǩař	tree, wood (gA ɟiɣr)
5	cǩaǩ	forest
6	ɟomř	branch

TABLE III: Word-family *ǧa

Items 1 to 5 share an element that can be traced to a putative *ǧa; 4 to 6 have an initial palatal stop (note especially the gA form in item 4). The folkloristic form cited in 1 is not essential to our procedure but is of considerable interest. I think that it is a willful distortion of the normal word for 'board': note the change from normal ǧ to folkloristic q (lenis to fortis) and m (labial) to ŋ (velar). All the forms end in nominalizers: -ř/-r, -q, -ǩ. Item 3 is a ritual word with taboo overtones. One form which belongs to this family is not given in Table III: ǧa, the nursery word for 'tree, wood'. It would be very tempting to say that this is an atavism and that this ǧa represents, in fact, the proto-form for 'tree, wood', but I think that it is merely a simplification (reduction of clusters, initial stop, CV structure) typical of nursery language in general. But I do

want to propose that the proto-form is *ǵa (or *ga, see above) and that the other phonic matter in the words in Table III represents grammatical elements: -l- in 1, -m- in 1 and 6, nominalizers (even -rf in 2), and of course c-/ǵ- in 4 to 6. I have vague ideas as to what these grammatical elements could have been but will not try to spell them out here.

4. One word-family is not enough. We need many, if this procedure is to have any value at all. Consider the set

1	caɣ	water	-ɣ nominalizer
2	cati	well, spring	see section 6
3	cafǎcav-	splash	-f locus; reduplication
4	cacf	swamp	-c- reduplication; -f locus

TABLE IV: Word-family *ca

the members of which share the initial segment ca... 'something to do with wetness'. The segment ...ti in item 2 is discussed in section 6. The f and v in items 3 and 4 are the local-temporal suffix which still lives: wi- 'go' : wi-f 'when/where one goes'. This -f alternates with -v- intervocalically and in other well-defined positions; we can therefore trace it to *b plus vowel. The medial -c- in item 4 may (or may not) be a reduplication of the initial c...; to account for its having remained intact and not fricativized to s we assume that it was a geminate (perhaps an affective one) originally. 4 may therefore have been *caǎccV-bV 'place where *ca repeats itself affectively'.

5. Is there any promise in this procedure, namely in assigning morpheme status to segments in the hope that they will eventually aggregate into meaningful units?

Table V contains sixteen items, seven of which share one initial segment, ǵ plus vowel (numbers 1 to 7), and seven others of which, numbers 10 to 16, share another (d plus vowel). Two items, numbers 8 and 9, belong to neither class. The table is an attempt to justify

the procedure suggested above, but on a larger scale. We will ignore details of the phonology, some of which have been worked out and many of which remain to be codified. The little parcels of meaning are severed and indicated, in their reconstruced form in columns A to G. See the legend under Table V.

First of all, note that item 8 is not represented in columns A or B and item 9 has nothing to represent it in column A. All the others have either a ǵ-initial or a d-initial segment which we will call the starter. The starter may or may not be a root; it does not matter, since we do not know how to define the root in this proto-language. The vocalism of the starters needs much ironing out but it is certain that some of this ironing out will be phonological; let us remember that postvelars (q and others, column 5, Table I) pull vowels down and back; compare items 1 and 2 in this light. Column B is a starter for item 9 (it is the first segment) but a formant for items 6, 7, 11, 12.

		A	B	C	D	E	F	G		
1	ǵoñẍ	ǵjo		ñ			-q		inside corner	1
2	ǵiñx	ǵi		ñ			-k		lower leg	2
3	ǵif	ǵi						-b	path	3
4	ǵicm-	ǵi			ǵǵ	m			tread/step on	4
5	ǵesq	ǵje			ǵ		-qq		claw-X	5
6	ǵaqr	ǵje	qq					-d	three	6
7	ǵaqo	ǵje	qq					-Vw	knife	7
8	ñemẍ			ñe		m	-q		mosquito	8
9	akñu-		akk	ñ-u					sharp	9
10	damk	da				m	-kk		hand	10
11	dakñ	da	kk	ñ					fingernail	11
12	doqñ	do	qq	ñ					claw-Y	12
13	domẍ	do				m	-q		elbow	13
14	dot	do			dd				arm	14
15	doṙpŋ	do			d			p- -ŋ	lower arm	15
16	duñmŋ	du		ñ		m		-ŋ	finger	16

TABLE V: Two word-families (1-7, 10-16) and two words (8, 9). Columns: A, starters; B and C, starters and/or formants; D, reduplication of initial; E, 'mobile-joint' formant; F, nominal cloture by velar; G, other nominal cloture.

A formant is a hypothetical segment with meaning; the meaning proposed here is 'isosceles' because of the shape of the items which contain it. (The blade of the Gilyak ixñ ʒeqo 'killing knife' is pyramidal, i.e., has an isosceles cross-section.) Column C (a starter for 8 'mosquito') seems to carry the meaning 'tapered and/or pointed'. The lower leg (2) must thus be envisaged as tapered, like all the other items in the column. In 9, I included the transitivizer -u in column C, for reasons of economy of space. Column D is the one of which I am least convinced, reduplication, which has served us well in section 4. We may reckon with simple (items 5, 15) and geminate reduplication (items 4, 14) for which I cannot, at this point, spell out the conditions. Column E is an elusive but a powerful category: 'involving a joint or mobility'. We must view 4 'treading' as involving movement at a pivot-point and 8 'mosquito' as characterized by its angular and pliant legs. 'Hand', 'elbow' and 'finger' (10, 13, 16), all of which share this formant, -m-, help to justify it. It is now time to close the word. In the case of nouns, we have our arsenal of velars and postvelars, stops and fricatives: column F. Other devices for cloture (column G): 3 local, 6 agent or actor (Gilyak has more than twenty numeral classifiers which appear in suffix-position -- this is only one of them), 7 an enigmatic segment (perhaps a vestige of the second member of a compound), 15 the trace of pi- 'be in a place' plus -ŋ (see the discussion of miri in section 6), and 16 the adnominal -ŋ. Evidence for the segments given in column G can be amply found in the living language.

Table VI is a synthesis-test of the information and implicit hypothesis contained in Table V. It lists, in abbreviated form, the grammatical processes and semantic parcels which, when joined into an

aggregate, should yield the meanings of the sixteen items in Table V.

1	X,	V-1,	pointed, -N	corner
2	X,		pointed, -N	lower leg
3	X,		place-N	path
4	X,	ÂÂX,	joint,	step on
5	X,	V-2,	ÂX -N	claw (X)
6	X,	V-2,	isosceles, -N	three
7	X,	V-2,	isosceles, noun?	knife
8			pointed, joint, -N	mosquito
9			isosceles, pointed/verb	sharp
10	Y,		mobile, -N	hand
11	Y,		isosceles, pointed	fingernail
12	Y,	V-1,	isosceles, pointed	claw (Y)
13	Y,	V-1,	joint -N	elbow
14	Y,	V-1,	ÂÂY	arm
15	Y,	V-1,	ÂY, 'be in/at', -N	forearm
16	Y,	V-2,	tapering, joint, -N	finger

TABLE VI: Synthesis. X and Y, the two root-like segments; Â and ÂÂ, two kinds of reduplication; V (V-1, V-2), special rules for vowels; -N, nominal cloture.

What I call the implicit hypothesis in Tables V and VI also implies something else, namely, that the proto-language was something like a class-language, with definite slots for specific grammatical and lexical parcels -- something like Nootka. This is quite unlike Gilyak today which is straightforwardly agglutinating. Should it turn out that proto-Gilyak was indeed a language of the Nootka-type, I can see flocks of eager phylum-comparatists jumping to conclusions. Since I believe in understanding a body of data before comparing it, I will concentrate on internal reconstruction for the moment. One last sample of the attempt follows.

6. The majority of Gilyak roots is monosyllabic. Bisyllabic roots therefore offer a special challenge, even if they are more or less transparent to the trained eye. The challenge can sometimes be tantalizing, as in <u>dafti</u> 'area in front of the house', which must have

something to do with daf 'house' (gA dyf). But what is -ti? Since I cannot provide a final answer, I will lump nouns in final -ti with others in final -ri and one in final -ty. It should be remembered that morpheme-medially we have only one series of stops. I write these with stops from the fortis series: p, t, c, k, q. Interestingly enough, intervocalic stops are somewhat longer than stops in VCCV environments; during my first period of fieldwork I wrote geminates for C in VCV. This phonetic fact may have some bearing on what follows.

In Table VII we see listed the eleven examples of which some eight perhaps share a reconstructible element *-di or *-ddi. The meaning of this element *-(d)di is uncertain; see the discussion below. I need both single and geminate d because I want to reconcile the -r- in miri (number 8, Table VII) with the -t- in cati (number 5). On what grounds may I assume that modern -t- came from an older *-dd-? On the following. The verb na- 'strike, beat' has a derivate by reduplication, ɣaca- '(song-text genre which involves rhythmically beating a log with sticks)'. The n- : ɣ- alternation is clear: it is transitive vs. intransitive (or noun). The medial -c- in ɣaca- is therefore the reduplicated pendant of initial n- which, in turn, is the fricative pendant of ɣ. For this reason I assume that modern -t- can be traced to an older *-dd-. (Note on the gA forms: It is unclear why the Soviet sources write y in the second syllable in gA, numbers 1-2 and 5-7. I assume for the moment that they do so to avoid palatalization of the grapheme t before i. Also: why i in 5 gA city? Cf. sO a.)

Obviously, some of these words do not belong here. I would hesitate to assign number 1, iti, to it- 'say' for reasons of common sense. Even if these were to be overruled, I would, by doing so, assign the -t- to the root and not to the suffix (*-ddi) and thus defeat my own

purpose, which is to explain '-ddi. Let us therefore eliminate iti.

	gS	gA	Rough Gloss	Re-construct	Cf.
1	iti	ity	lower jaw, chin	?	--
2	oŋqti	oŋty	buttocks, ?anus	o-ŋ-ddi	o-
3	ofti	--	latrine, outhouse	o-bɨ-ddi	o-
4	dafti	--	front of house	dabɨ-ddi	daf
5	cati	city	well, spring	ca-ddi	caẍ
6	kuti	kuty	hole, opening	ku-ddi	ku, xu-
7	hyty	huty	center, inside	?hy-ddi?	Demonstr.?
8	miri	miri	toad	mi-di	mi, mif
9	oɣri	oɣri	back of head, nape	?ogɨ-di	oẍ?
10	aɣri	aɣri	saliva	a-gɨ-di	am, af, al
11	ari	ari	after(math)	?a-di	?

TABLE VII: Bisyllabics in -ti, -ri

Numbers 2 and 3 belong together and are obviously related to o- 'defecate' and otẍ 'feces'. The -f- in 3 is locus; we reconstruct it as '-bɨ- because modern prepausal -f (at least in gS) alternates with medial -v-. ɨ in -bɨ- stands for a vowel which I cannot and need not identify further at this point. The q in 2 is epenthetic/intrusive (ŋ before t gives ŋq); see the gA form for confirmation. ŋ in 2 is a marker for nouns and prenominals in gS to this day and must have had this function in all dialects earlier. 4 dafti is obviously connected with daf 'house' but once we sever the -f 'locus' of daf, we do not know what the remaining 'da- is. Also obvious: 5 cati from 'ca, cf. caẍ 'water'; see above, section 4. The verb xu- means 'P is in Q' but, being transitive, more properly 'P has been inserted into Q and remains there', e.g. ɨaq xu- '(baby) is in (its) cradle'. This verb and the noun ku 'arrow' must be related to 6 kuti, perhaps '(') area where an insertion (of space?) has been made', if -ti means 'area where...' at all -- after all, we already have an -f for 'locus'. Could this -ti once have been a specifically three-dimensional area, as against the general time-and-space morpheme -f? Back to the grind: 7 hyty has -ty where we are used to -ti; note also the

vocalism of the gA form. Does hyty belong here at all or has it intruded into the list, like 1 iti? Its meaning begs to be considered here: 'middle, the very middle' = 'space where deixis has been inserted', but what is hy-? A demonstrative? Perhaps: note the deictic roots hu- 'this; be here' and °hy- 'yes'. The etymologies of the names of frogs and toads are notoriously elusive. Why should miri appear on this list at all? Because of its interesting synonym in gA: mif pi- 'which is in the earth'. In all the folklore I have collected I cannot recall anything reminiscent of the toad's mythical habitat, but I will seize on this connection and propose that miri is from mi 'interior' and °-di 'three-dimensional enclosure or designated area'. All we need now is a Gilyak myth to confirm this. The root mi recurs in mif 'earth', literally °mi-f 'place which is at the center', mi 'interior' and milk 'monster'. For 9 oɣri I can only propose a vaguely realistic connection with gS oɤ 'trough' (based on the analogy of the shape of a trough and the back of the head -- unless oɣri means specifically 'scruff of the neck', in which case we eliminate the word from the list). In the case of 10 aɣri we are on safer ground, given the huge family of °a-, amply represented by am 'bait', amx 'mouth', af 'beard/moustache', aflyx 'lips', al 'buccal cavity' (gA yl- and yŋ) and perhaps even aw 'voice'. (amfaŋ 'taste' is of Tungus origin.) What we gain in satisfaction over aɣri is again lost in disappointment over 11 ari- 'space behind an identified spot; wake of' (both verb and so-called postposition). This must be a different root, °a, from that exploited in 10, but what? I do not know.

As if this were not sad enough, there are also no clear criteria for determining when °-di (as in -ri, 8 to 11) and when °-ddi (as in -ti, 1 to 7) are to be predicted. Are they the same element to begin with? Are they governed by phonological (length of preceding segments) or

other conditions (perhaps meaning of the preceding morpheme)?

This is the indeterminancy which prevails in the entire complicated network of questions which, together, could lead us further on the road to the internal reconstruction of this language. I am using *network* literally here. The little pieces ought indeed to form an interlocking system of chains (so the *ca* of *cax* and of *cati* and the *ti* of *cati* and of *kuti*) which, if worked out relentlessly, ought to explain everything.

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THE PHONOLOGY OF CHUKCHEE CONSONANTS

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Chukchee is a language with a remarkably rich phonological structure.[1] This paper will concentrate on one aspect of this structure--the various rules of assimilation and dissimilation affecting adjacent consonants. Special attention will be given to the ordering of these "local" consonantal rules. These rules constitute a reasonably homogeneous and rather easily segmentable portion of the entire phonology in that they follow various rules inserting and deleting vowels and are essentially unordered with the vowel harmony process. However, since some of these vocalic processes pervade many of the examples to be presented below, it is necessary to say a few words about them here (see Kenstowicz 1979 and Kranse 1979 for more detailed discussion).

Chukchee vowel harmony is of the dominant-recessive variety, with a and o dominant and i, e, and u recessive. Whenever the recessive [i,e,u] appear in a word with a dominant vowel, they mutate to [e,a,o]. The schwa vowel undergoes no harmonic alternation and appears freely with either dominant or recessive vowels. Nevertheless, it may also appear as the only vowel of morphemes which trigger the harmonic change.

Like many languages, Chukchee has rigid restrictions on the number of consonants that are permitted to cluster together in phonetic representation. There are no word-final clusters and, with the exception of CCʔ, medial three-consonant clusters are prohibited as well. In addition, most initial consonant clusters are not tolerated. When such impermissible clusters arise through the concatenation of morphemes in underlying representations, or through the deletion of a vowel, they are broken up by the insertion of a schwa. Initially and finally the schwa is inserted within the cluster (i.e. #C__C and C__C#), while medially it appears at the morpheme boundary (i.e. C+__CC or CC__+C).[2]

The inventory of consonantal phonemes includes the voiceless stops p, t, k, q, and ʔ; the nasals m, n, and ŋ; the alveopalatal affricate c (with č allophones initially and finally); a voiced velar spirant, transcribed here as g; the liquids l (voiceless) and r; and the glides w and j.

One of the most pervasive processes in Chukchee is a rule changing voiceless stops to nasals before a nasal: [p,t,k] → [m,n,ŋ]/___[m,n,ŋ]. (In Chukchee's sister language Korjak only t undergoes this process.)

(1)	pene-k	'to grind'	ge-mne-lin	past
	repen	'flesh side of hide'	remn-et	plural
	peŋel	'news'	ga-mŋet-len	'having news'
	ten-ek	'to kill'	ga-nne-len	past
	reten	'tooth'	renn-et	plural
	teŋe-k	'to grow'	ge-nŋe-lin	past
	plek-et	'footware'	te-pleŋ-ŋ-ek	'to make footware'

No examples of k before m or n appear in (1) because of the existence of another rule which weakens k to the spirant g before a nonvelar consonant.

(2)	mek-atenwel-en	'having many wounds'
	mek-gerg-en	'multitude'
	meg-petwel-en	'many-storied'
	meg-jan	'greater part'
	meg-cislo	'many numbered'
	meg-milger-e	'many guns'
	cek-ajelgaw-ek	'to fear slightly'
	cig-mejŋet-ek	'to grow slightly'
	cig-milgin-min	'he raised slightly'

ga-kwot-len cf. kewot-erken 'takes part in'
ne-gt-eqen 'hard', cf. ket-otto-ot 'hard wood'; cf. geteŋ-gerg-en 'beauty', ne-gtiŋ-kin 'beautiful'

The most straightforward interpretation of these data would be to order the k-g rule before stop nasalization, depriving the latter of any km and kn inputs. However, the existence of another rule dissimilating ŋ to g before a nasal offers the possibility of a more roundabout way of converting km and kn to gm and gn, namely through the intermediate stage of ŋm and ŋn. Examples of the ŋ → g/___[m,n,ŋ] rule appear in (3).

(3)	teraŋ-ek	'to build a dwelling'	ne-tarag-more	'we built a dw.'
	metleq-en	'five'	metleg-more	'we five'
	enawreq-ek	'to give as a gift'	enawreg-nen	'he gave it'
	tejeliŋ-ek	'to press, iron'	tejelig-nin	'he pressed it'
	taaroq-ek	'to request'	ra-taarog-ŋ-etek	'you pl. will r.'
	pet?iŋ 'cold', ŋinqej 'boy'		pet?ig-ŋinqej	'boy with a cold'

Thus, one might envisage deriving gm and gn from /km/ and /kn/ by first nasalizing the underlying sequences /km/ and /kn/ to ŋm and ŋn and then dissimilating the latter to gm and gn. However, such an analysis is precluded by the fact that underlying /kŋ/ would become ŋŋ and then gŋ instead of the desired ŋŋ. For ŋ-dissimilation applies only to underlying /ŋŋ/ clusters, not those derived from /kŋ/ by stop nasalization. Thus, unless the rule of ŋ-dissimilation is endowed with global power to distinguish those ŋŋ sequences which derive from /kŋ/ versus those that derive from /ŋŋ/ (but still to apply to ŋm from /km/ and ŋn from /kn/), this analysis must be rejected.

We will thus require k-g to precede and "bleed" stop nasalization. We also require that ŋ-dissimilation precede stop nasalization, since, as we have just seen, ŋ-dissimilation applies to underlying /ŋŋ/ but not to ŋŋ sequences that derive from /kŋ/. The following derivations will illustrate the relationship among the rules in the proposed analysis.

(4)	/pm/	/kn/	/kŋ/	/ŋn/	/ŋŋ/	
	--	gn	--	--	--	k → g
	--	--	--	gn	gŋ	ŋ-dissimilation
	mm	--	ŋŋ	--	--	stop nasalization

The two sounds ŋ and g figured prominently in the above discussion. Let us now examine the behavior of these segments in other contexts. First of all, ŋ assimilates the point of articulation of a following consonant, while m and n do not. This is illustrated in (5).

(5)				
	teŋ-el?-en	'good'		
	tam-wageŋg-en	'good life'		
	tam-pera-k	'to look good'		
	tan-cotcot	'good pillow'		
	tan-lemŋel	'good story'		
	tam-r?arqe	'good breastband'		
	ten-jelqet-ek	'to sleep well'		
	ŋeto-k	'go out'	ga-ato-len	past
	liŋel	'pigeon'	lial-et	plural
	wiŋer	'hoe'	winri-t	plural
	ŋepe-k	'to get off'	ge-epe-lin	past
	piŋpiŋ	'ashes' (reduplication of /piŋ/)		

cf. mek- 'many', me-mke-kin 'often'; imet 'load', imti-t pl.; me-kim-eqim 'slow', ge-n-kim-ew-lin 'impeded'; pera-n 'image', gm-n-pera-w-len 'decorated'

The Chukchee nasal assimilation process thus provides important evidence bearing on the question of nasal assimilation hierarchies. As is well known, there are many languages (e.g. Lithuanian, Arabic) where n assimilates the point of articulation of a following consonant while m does not. The Chukchee data suggest that ŋ is weaker than n in this respect. This provides further support for the generalization noted by a number of writers (e.g. Chen 1974) that velars are more likely to suffer assimilation and lenition than are dentals, which in turn are weaker than labials. The k → g process noted earlier is a further manifestation of this phenomenon, since p and t do not suffer an analogous weakening. (As we will see later, Chukchee q also weakens before a consonant).

The behavior of the velar spirant g in Chukchee is quite complex. Generally before the labial consonants m and p underlying g appears as w, though in some cases this change appears to be optional.

(6) etleg-en 'father' etlew-pojg-en 'father's spear'
ʔig-en 'wolf' ʔiw-pipiq-elg-en 'lemming' (wolf+mouse)
n-etleg-qin 'sweet' etlew-metqemet 'honey' (sweet+fat)
cf. ciwm-elʔ-en ~ cigm-elʔ-en 'short', leg-mak ~ cew-mak 'egg shell'

In some cases underlying /k/ will appear as w before m and p, presumably through a reordering of the k→g rule to feed the g→w process: aacek 'young man', aacew-matalʔ-en 'brother-in-law'; mek- 'many', mew-penwel 'many two-year-old reindeer bucks', mew-mooqor 'many pack reindeer'. The latter two forms come from Bogoraz (1922), who lists many more cases of /k/ appearing as w before a labial than does Skorik. (Bogoraz worked with informants from the western dialect, while Skorik describes the eastern (literary) dialect). Interestingly, in no cases have I found that gm from /ŋm/ alternates with wm. Finally, there are a number of cases where g sporadically alternates

with w (usually in the environment of a rounded vowel), but where the alternating consonant corresponds to a w and not a g in Korjak: cf. Chukchee wopqə/gopqə 'moose', Korjak wepqa-m; Chukchee wut-ek/gut-ek 'to attach', Korjak wut-ek. These forms thus evidence a variable rule dissimilating w to g in the context of a rounded vowel. This rule provides an explanation for the following correspondence: Korjak ŋewo-k 'to begin', Chukchee ŋoo-k/ŋgo-k. These forms have arisen from a couple of variable rules in Chukchee phonology. One deletes intervocalic glides, converting ŋewo-k to ŋeo-k, which yields ŋoo-k by obligatory assimilation of schwa to an adjacent vowel. The other variably deletes an unstressed schwa from initial syllables giving ŋwo-k, whence by ŋ-assimilation and w→g we get ŋgo-k. (See Skorik 1961:61-64 for discussion of these variable rules).

Summarizing the above discussion, it seems safe to assume, with Skorik (1961:46), that there is a rule g → w/___[cons., labial], with a tendency to reorder this rule into a feeding relationship with the k → g rule. The other cases of g alternating with w must await further study.

Continuing the discussion of /g/, it remains unchanged before coronal consonants: genu-k 'to be superfluous', ge-gnu-lin; ger-ek 'to lasso', ge-gre-lin; gejulet-ek 'to instruct', ge-gjulet-lin. The behavior of /g/ before a velar consonant is best discussed in terms of the following matrix, which shows the phonology of all possible combinations of velar consonants.[3]

(7)

	k	g	w	ŋ
k	kk	kg	kw	ŋŋ
g		kg	kw	ŋŋ
w	wk	kw	kw	wŋ
ŋ	ŋk	ŋg	mw	gŋ

Examples illustrating the combinations of underlying velars depicted in (7) appear in (8).

(8) /k/ + /k/ ekek 'son', ekk-et pl.

/k/ + /g/ nek-gerg-en 'multitude'

/k/ + /w/ kewet-erk-en 'takes part in', ga-kwet-len

/k/ + /ŋ/ gennaik 'animal', gennin-ŋett-ek 'to earn one's living by means of animals'

/g/ + /g/ menig 'cloth', manek-gepe 'from cloth'

/g/ + /w/ wetecg-en 'overalls', manek-wetecg-en 'overalls cloth'; gewa-k 'to be delayed', ga-kwa-len

/g/ + /ŋ/ liglig 'egg', ŋeto-k 'to go out', leŋ-ŋeto-k 'to hatch', leŋ-ŋeta-k 'to go for eggs'; ?ig-en 'wolf', ŋinqej 'boy' ?iŋ-ŋinqej 'wolf-boy'

/w/ + /k/ ne-kew-kin 'comfortable'

/w/ + /g/ tew-ek 'to tell', tek-werg-en 'communication' from /tew-gerg-en/, kak-werg-en 'comfort' from /kew-gerg-en/

/w/ + /w/ ŋew-?en 'woman', waŋe-k 'to sew', ŋak-waŋe-gerg-en 'woman's sewing'

/w/ + /ŋ/ enjiw 'uncle', enjiw-ŋew 'uncle's wife'

/ŋ/ + /k/ emnuŋ 'tundra', emnuŋ-ke locative

/ŋ/ + /g/ iŋiŋ 'nose', eŋ-gepe 'from nose', eŋ-gerg-en 'middle blade of reindeer horn'

/ŋ/ + /w/ pimpiŋ 'ashes' (root /piŋ-/, pim-wetr-en 'flour'

/ŋ/ + /ŋ/ taaroŋ-ek 'to try', ra-taarag-ŋ-enen 'he will try it'; negtiŋ-kin 'beautiful', getig-ŋew-ecget 'beautiful woman'

An immediate problem is presented by the data in (8)--namely, how can /g+ŋ/ → ŋŋ, while /ŋ+ŋ/ → gŋ? The latter change, recall, was part of a more general process that dissimilates ŋ before all nasal consonants (cf. (3) above). No matter in which way the rules are ordered, one will always undo the effect of the other. If ŋ-dissimilation applies first, converting /ŋ+ŋ/ to gŋ, there is no way to prevent it from switching back to ŋŋ by the rule that would convert /g+ŋ/ to ŋŋ. A similar problem arises if the rules were to be applied in the reverse order. Nor do these rules fall under the purview of any of the various constraints discussed in the literature for imposing disjunctive ordering.

A solution to the dilemma is suggested by the fact that a rule dissimilating the velar spirant /g/ to k before /g/ and /w/ (and /k/ ?) is needed in any case. Suppose that this rule is extended to apply before /ŋ/ as

well. This move would take /gŋ/ to kŋ and thus effectively shield this cluster from ŋ-dissimilation rule. After the latter rule has applied to give gŋ from /ŋŋ/, kŋ from both /kŋ/ and /gŋ/ will be converted to ŋŋ by the general rule of stop nasalization. The following derivations illustrate the proposed solution.

(9)	/kŋ/	/gŋ/	/ŋŋ/	
	--	kŋ	--	g-dissimilation (g → k /__[g,w,ŋ])
	--	--	gŋ	ŋ-dissimilation
	ŋŋ	ŋŋ	--	stop nasalization

The change of /ww/ and /wg/ to kw in (8) can be handled in a variety of ways. Perhaps the most natural is wg → ww → gw → kw, though I know of no evidence that would justify this particular solution.

Before proceeding to some additional rules involving Chukchee consonants, it is worthwhile to note the dual nature of w in Chukchee. In some cases it classes together with the labial consonants, as in the ŋ-assimilation rule and in the rule g → w /__[cons. labial], where the change of g to w can be interpreted as an assimilation of the labiality of the following p and m. It is therefore somewhat remarkable that w does not trigger this rule. But this of course is to be explained by the fact that all occurrence of g+w have already been switched to kw by the rule of g-dissimilation, wher the velar character of w manifests itself. Incidentally, this ordering of g-dissimilation before g → w is consistent with the principle noted in Donegan and Stampe (1979) that dissimilatory processes tend to precede assimilatory ones. I will return to this point later.

Turning now to the /q/ and /ʔ/ phonemes, there are, phonologically, two distinct kinds of glottal stop in Chukchee--a prevocalic one and a preconsonantal one. (The glottal stop does not appear word-finally). According to Skorik (1958), these two glottal stops are actually distinguished phonetically in the eastern (literary) dialect. The prevocalic variety is

described as "weaker" (aspiration with no complete glottal closure), while the preconsonantal one is "stronger", articulated with glottal closure. This state of affairs is historically explicable by comparison with Korjak: the prevocalic glottal stop corresponds to the Korjak pharyngeal fricative, transcribed here as h, while the preconsonantal one corresponds to Korjak q.

(10)	Chukchee (eastern d.)	Korjak	
	ʔelʔel	helhel	'snow'
	ŋewʔen	ŋewhen	'woman'
	nʔumqin	nhumqin	'wide, thick'
	leʔuk	lehuk	'to see'
	ʔaʔel-gatte	hahel	'axe'
	leʔleŋ	leqleŋ	'winter'
	meʔmit	maqmit	'arrows'

Most occurrences of the Chukchee preconsonantal glottal stop alternate with a prevocalic q and thus may be derived by the rule q → ʔ/___C. Illustrations of this automatic alternation appear in (11).

(11)	abs. sg.	abs. pl.		
	piʔpiq	piʔpiq-et	'tail'	/piq-/
	jaʔjaq	jaʔjaq-et	'sea-gull'	/jaq-/
	aqen	aʔn-et	'fishing pole'	/aqn-/
	weqen	weʔn-et	'fish sp.'	/weqn-/

In the western dialect of Chukchee the phonetic contrast between the prevocalic and the preconsonantal glottal stop has been lost and all occurrences of VʔC have been metathesized to ʔVC.[4] Thus, in this dialect we have meqem, mʔemi-t 'arrow', corresponding to eastern meqem, meʔmi-t and to Korjak maqem, maqmi-t. Thus, in the western dialect the distribution of the ʔ from /q/ parallels the distribution of the weaker glottal stop that corresponds to Korjak h.[5]

Turning now to the coronal consonants, the table in (12) illustrates the alternations to which these consonants are subject.

(12)

	t	c	n	l	r	j
t	tt	tc	nn	tl	tr	tj
c	tt	cc	cn	tl	cr	cj
n	nt	nc	nn	nl	nr	nj

	t	c	n	l	r	j
l	lt	lc	ln	tl	tr	lj
r	tt	tc	nn	tl	tr	tj
j	gt	gc	gn	gl	gr	gj

Illustrations of these alternations appear in (13).

(13) /c/ + /t/ str?ec 'all', str?et-teg-en 'end'
/c/ + /l/ ec-ek 'to snap at', g-et-len
/l/ + /l/ jegtel-ek 'to live', ge-jegtet-lin
/l/ + /r/ gergol 'top', gergot-rank-en 'upper class'
/r/ + /t/ pekir-ek 'to arrive', pekit-tek 'you pl. arrived'
/r/ + /c/ qeper 'glutton', qapat-ceŋ-en 'big glutton'
/r/ + /n/ kur-ek 'to buy', kun-nin 'he bought it'
/r/ + /l/ eŋer 'star', aŋat-leŋ-en 'star'
/r/ + /r/ etre-lg-er ~ erro-lg-en 'bedding made of needles'
/r/ + /j/ kur-ek 'to buy', kot-jo 'purchase'
/j/ + /t/ w?ej-ek 'grass', locative; w?eg-ti 'grass', pl.
/j/ + /c/ ŋin-qej 'boy', ŋen-qag-ceŋ-en 'big boy'
/j/ + /n/ caj 'tea', cag-nalk-ek 'to make tea'
/j/ + /l/ qej-we 'correct', qeg-lemanget 'truth'
/j/ + /r/ w?ej- 'grass', w?ag-ran 'grass house'
/j/ + /j/ qejeqej 'nestling', qag-ja?jaq 'young sea-gull'

Thus, similar to the strengthening of g to k before velars, we find that r strengthens to t before coronals, with subsequent nasalization before n. In addition, l is strengthened to t before liquids and c assimilates the closure of following voiceless coronal consonants arti culated with closure (i.e. ct → tt and cl → tl).

More interesting is the change of j to g before coronals. This is, admittedly, a rather peculiar phonetic change, but is nevertheless a quite regular rule, as evidenced by the behavior of Russian loanwords like caj 'tea': cf. cag-te pl., but caj-paw-ek 'to drink tea', caj-kojŋ-en 'tea cup'. The phonetically bizarre nature of the change might be mitigated by construing the change to take place in steps rather than directly. Given the phonology as a whole, it does not seem unreasonable to assume that [illegible]

strengthened to t before a coronal as j is strengthened to a k', which would naturally be merged with the velar k, whence g by the regular rule weakening k to g before nonvelar consonants.

In any case, whether the change of j to g is mediated by k or proceeds directly, will not be relevant for the point I wish to now develop. In Kenstowicz and Kisseberth (1973) it was proposed as a general ordering constraint on phonological rules that a rule of vowel epenthesis breaking up a consonant cluster will always precede and hence prevent the application of any local consonantal rule which changes the feature composition of a consonant by virtue of its adjacency to another consonant. This principle is one of the few rule-ordering universals to have withstood the test of time.[6] Chukchee phonology of course provides an excellent illustration of this principle in that it has such a rich stock of local rules. Every one of them must be ordered after the schwa epenthesis rules. Although this point should have been apparent from the examples cited, it would be useful to reiterate it here. Alternations like pene-k, gemne-lin /pne-/ show that schwa epenthesis bleeds stop nasalization, while alternations like ket-ette-et, ne-gt-eqen show that epenthesis precedes k → g. Forms like liŋel, lial-et from /liŋl/ and /liŋl-ti/ show that epenthesis precedes ŋ-assimilation. A pair of forms such as pojg-a 'spear' (instrumental case), but ga-pojg-ema 'along with a spear' from /ga-pojg-ma/ show that epenthesis bleeds the rule changing g to w before a labial. Finally, forms such as gewa-k, ga-kwa-len (root gwa-) and aqen, aʔn-et (root aqa-) demonstrate that epenthesis must precede the rules of g-dissimilation and q → ʔ. The principle that vowel epenthesis always precedes a local consonantal rule correctly predicts that the insertion of a schwa always prevents the application of these rules in Chukchee.

There is, however, an additional aspect to this principle. It predicts that if an epenthesis rule is, for any reason, sensitive to a particular

feature of one of the consonants in a cluster, epenthesis will always be determined by the underlying character of the consonant, as opposed to any derived characteristic it would acquire by virtue of the application of a local rule.

The Chukchee rule dissimilating j to g before a coronal provides an interesting test of this principle. As shown in Krause (1979), when word medial epenthesis applies to break up a CCC cluster, the schwa is regularly inserted at the morpheme boundary: CC+__C or C+__CC. However, when each consonant belongs to a separate morpheme (i.e. when we have C+C+C), there is variation between whether the schwa appears between the first and second consonant or between the second and the third consonant. The principle underlying this variation appears to be that the schwa is placed between the first and second consonants unless they share the coronal point of articulation, in which case the schwa is placed between the second and third.

The suffixal complex composed of the elements /l+ŋ/ that appears in the absolute singular of many nouns will illustrate this aspect of Chukchee phonology.[7] However, first it must be pointed out that the ŋ is often disguised as surface g by a rule of Chukchee that converts ŋ to g after l and c (one of the few rules in Chukchee changing the second as opposed to the first element in a consonant cluster). The operation of this rule is apparent in the data of (14).

(14)	leŋ-ek	'to consider'	ge-lge-lin	
	ceŋat-ek	'to split'	ga-cgat-len	
	ŋel-et-ek	'to burn'	ŋel-gel 'smoke'	(cf. Korjak ŋel-ŋel

The suffixal complex /l+ŋ/ shows its underlying shape when the stem ends in a single coronal consonant, as in (15).

(15)	aŋat-l-eŋ-en	'star'	eŋer-ti	pl.
	mran-l-eŋ-en	'mosquito'	mren-ti	pl.[8]
	kerwa-t-l-eŋ-en	'elbow'	kirwe-t	pl.

Note that in (15) the schwa appears between the l and the ŋ in the underlying /C+l+ŋ/ cluster, since the final consonant of the stem and the l agree in coronality.

However, when the stem ends in a noncoronal consonant, the schwa appears between the stem and the l, permitting the ŋ of the underlying /C+l+ŋ/ cluster to become g by the rule we saw in (14). This is illustrated by the data in (16).

(16)	wanaq-el-g-en	wanuq-et	'cheek'
	pepek-el-g-en	pipik-et	'ankle'
	plak-el-g-en	plek-et	'footware'
	jag-el-g-en	jeg-et	'paw'
	teg-el-g-en	tig-et	'ski'
	teŋ-el-g-en	tiŋ-et	'quill pen'
	relget?em-el-g-en	relget?em-et	'phalange'

We now have a way of testing the second aspect of the proposed ordering principle. If a stem ends in j, we will have the underlying sequence /j+l+ŋ/. If the j-dissimilation rule applies before epenthesis, we derive /g+l+ŋ/, which will become /g+əl+ŋ/ by epenthesis and eventually /g+əl+g/, (cf. /teg-l-ŋ/ → teg-el-g-en in (16)). On the other hand, if j-dissimilation is applied after epenthesis, as required by the proposed ordering principle, the schwa will be positioned between the l and the ŋ, since j and l share the coronal point of articulation. Subsequent application of j-dissimilation will then yield /g+l+əŋ/. The data in (17) show that the ordering principle makes the correct prediction.

(17)	stem	abs. sg.	abs. pl.	
	/epej-/	apaapag-l-əŋ-en	epeepeg-ti	'spider'
	(cf. alternative abs.sg. epeepej			
	/cəgij-/	cəgag-l-əŋ-en	cəgeg-ti	'sand'
	(cf. cəgej-in 'sandy'			
	/w?ej-/	w?ag-l-əŋ-en	w?eg-ti	'grass'
	(cf. w?ej-ek 'grass', loc.			
	/caj-/	cag-l-əŋ-en	cag-te	'tea'
	(cf. caj 'tea', alternative abs. sg.			

Thus, there is a consistent contrast in the location of the schwa between stems ending in an underlying /g/ (cf. teg-el-g-en, root /tig-/) versus those ending in an underlying /j/ (cf. wʔag-l-eŋ-en, root /wʔej-/), despite the fact that the /g/:/j/ opposition is itself phonetically neutralized in these forms. Interestingly, a similar contrast appears in the plural of nouns. As shown in Kenstowicz (1979) and Krause (1979) the plural suffix /-ti/ is subject to a special rule deleting its vowel if the stem ends in a vowel or a noncoronal consonant. Thus, we have /milute-ti/ 'hares' → milute-t; /wejem-ti/ 'rivers' → /wejem-t/ and then wejem-et by epenthesis; /aacek-ti/ 'young men' → aacek-et; but /qʔawal-ti/ 'corners' → qʔawal-te; and jit-ti 'drops'. Stems ending in underlying /g/ permit the vowel of the plural suffix to be lost: /menig-ti/ 'cloths' → menig-et; /tig-ti/ 'skis' → tiget. But stems ending in underlying /j/ prevent dropping of the plural vowel even though the /j/ appears as g phonetically: /wʔej-ti/ → wʔeg-ti 'grasses' /ejwej-ti/ 'wooden forks' → ejweg-ti. This contrast could also be explained by the proposed constraint that epenthesis precedes local rules, since a derivation where j-dissimilation applies first, permitting the vowel of the plural suffix to be lost, would involve a subsequent splitting up of the dissimilated cluster by final schwa epenthesis.

In a recent paper Donegan and Stampe (1979) have suggested that the epenthesis--local rule ordering constraint can be viewed as a manifestation of a more general principle that strengthening processes (under which they include dissimilation, diphthongization, syllabication, and epenthesis) always precede weakening processes (assimilation, monophthongization, desyllabification, reduction, deletion, and lenition). In the light of the fortition-precedes-lenition principle they go on to propose a general model of phonological derivation consisting of two components (see (18)). The underlying representation is subject to the simultaneous application of all fortition processes, with possible reapplication. The resultant output is

then subject to the simultaneous application of all lenition processes, again with possible reapplication.

(18) GRAMMAR / LEXICON → Fortitions → Lenitions → SPEECH

In general I am quite sympathetic with the approach Donegan and Stampe have taken in viewing sequencing constraints in terms of the phonetic content and intent of phonological processes. For one thing, the fortition-lenition principle provides an attractive explanation for a rather characteristic rule-interaction pattern that resists an account in terms of the more cognitively based notion of rule opacity. As noted in Kenstowicz and Kisseberth (1977:175) many languages have vowel lengthening and shortening rules whose environments partially overlap. In such situations of overlapping environments, a given vowel will be subject to two contradictory instructions. One rule will require the vowel to be long, while the other will require it to be short. Application of either one of the rules will render the other opaque. Since either ordering leads to equivalent opacity, one would expect no preference for one kind of sequencing over the other. Nevertheless, in such conflicting situations the vowel is typically shortened rather than lengthened. If one makes the rather natural assumption that lengthening is a fortition process while shortening is a form of lenition, Donegan and Stampe's principle provides an interesting explanation for this phenomenon.

Nevertheless I think that it is a mistake to construe the vowel epenthesis precedes-local rules constraint as a subcase of the more general fortition-precedes-lenition principle. For one thing, vowel epenthesis will bleed a local rule regardless of whether the latter takes the form of a strengthening or a weakening process. As we have seen, the local rules of Chukchee are more or less evenly distributed between lenitions and fortitions, yet the

application of both types is suspended when a consonant cluster is split by an epenthetic vowel.[9] For example, given the underlying form /ga-kajq-ma/ 'along with the bear', the model in (18) predicts the simultaneous application of both epenthesis and ŋ dissimilation, which would yield the incorrect surface form ga-kajg-ma instead of the correct ga-kajq-ma. Perhaps it would be better to view vowel epenthesis not as a fortition process but rather as more of a prosodic principle responding to the exigencies of syllable structure and requiring it to apply fairly early in the derivation, with subsequent reapplication when necessary.

Another reason for not viewing vowel epenthesis as a fortition process is that in some languages it must clearly follow deletion rules. For example, in many dialects of Levantine Arabic unstressed short high vowels are syncopated in open syllables. When syncope gives rise to an impermissible (CCC) consonant cluster, a general vowel epenthesis process is applied. If vowel epenthesis is a fortition process, however, this sequencing of processes would be precluded by (18).

Regardless of whether vowel epenthesis is properly regarded as a strengthening process, there is, in my opinion, a more disturbing aspect to the model of phonological derivation Donegan and Stampe propose--namely its appeal to simultaneous application of processes. They correctly point out that bleeding interactions are the most serious challenge to this mode of rule application and suggest that most examples of bleeding can be accounted for in terms of the fortition-precedes-lenition principle. Be that as it may, there is, however, at least one type of situation which empirically distinguishes between a simultaneous versus a sequential mode of rule application--deletion rules that stand in a mutually bleeding relation. An example of rules exhibiting this relationship appears in Russian. One rule deletes the dental stops t and d before the past tense suffix -l.

Thus, we have /met-/ 'sweep' and /ved-/ 'lead' without the dental stop in the fem., neut, and pl. past tense forms me-l-a, me-l-o, me-l-i; ve-l-a, ve-l-o, ve-l-i. The other rule deletes the past tense suffix -l in word-final position when preceded by a consonant, i.e. in the context C__#. Thus, we have nes-l-a, nes-l-o, nes-l-i, but nes from /nes-l/, the masc. past form. The underlying form for the masc. past of 'lead' is clearly /ved-l/. If the rules are applied sequentially we get either ved or ve-l depending on which one is applied first. The correct output happens to be ve-l, showing that deletion of the dental stop must be granted priority over deletion of the -l. If, however, the rules are applied simultaneously, we derive ve. Not only is ve incorrect, it is exceedingly bizarre. So far as I know, application of both rules in a mutually bleeding relationship is unprecedented. Yet since this is the one (and only?) kind of rule interaction that would distinguish between simultaneous and sequential application, it should call for some reconsideration of the issue.

It should be noted here that the Russian data are not being presented as a counterexample to the simultaneous application proposal of Donegan and Stampe, since deletion of dental stops and loss of the final lateral consonant are phenomena limited to the past tense of Russian verbs and are thus not phonological processes in the sense of Donegan and Stampe. Nevertheless they represent the kinds of deletion phenomena that are found among natural phonological processes. If it can be shown that there are pairs of deletion <u>processes</u> standing in the mutual bleeding relationship that do apply simultaneously, this would constitute a strong argument in favor of the simultaneous mode of application. On the other hand, if one process must be granted priority over the other in such cases, we have a strong argument in favor of sequential application. It is my guess that the latter possibility will prove to be correct.

Footnotes

1. Sources for this study have included Skorik (1958,1961, 1977), Moll and Inenlikej (1957), Bogoras (1922, 1937), and Zhukova (1972).

2. The location of the inserted schwa with respect to the morpheme boundary has no significance in Chukchee. I shall thus sometimes write C+eC and sometimes Ce+C. These different transcriptions should be interpreted as equivalent.

3. I have been unable to find any clear cases of underlying /g/ + /k/, though it is clear that the morphology of the language would permit such clusters to arise freely, since there are many suffixes beginning with k. As Skorik (1961) is quite careful to mention all phonological and phonetic alternations in Chukchee, his silence on this matter would lead one to conclude that /g/ + /k/ undergoes no phonological change and thus appears as gk on the phonetic surface. The velar stop k would then constitute the only preconsonantal environment in which /k/ contrasts with /g/. Before all other consonants this opposition is neutralized phonetically.

4. As evidenced by a tape recording of a western informant supplied to the author by Bernard Comrie.

5. Zhukova (1972:31) states that Korjak h deletes in final position, citing alternations like hallah-ak 'mother', loc. but hella, abs. sg. I have been unable to find any examples of an h in preconsonantal position in Korjak, leading me to believe that the Chukchee phonotactic constraint limiting the "weak" glottal stop to prevocalic position reflects a similar limitation on Korjak h, and thus is a reflex of the proto-language. If true, one could view the western dialectal change of VʔC to ʔVC as being motivated by this constraint. A similar positional limitation on the glottal stop appears in many Philippine languages where ʔ never occurs preconsonantally. It is interesting to note that when a ʔC cluster arises morphophonemically in these languages, typically by vowel syncope, the glottal stop is metathesied in the opposite direction from that in western Chukchee: i.e. CVʔeCV → CVʔCV → CVCʔV.

6. The only counterexample I know of occurs in the Nootkan language Makah, as described in Jacobsen (1971), where a rule of vowel insertion must apply after the ancient rule delabializing labialized consonants before another consonant or word-final. This rule inserts a lengthened version of the root vowel after a monosyllabic stem when it is followed by a suffix beginning with a voiced or glottalized consonant: diq- 'to sew' + yakʷ → diqi:yak 'sewing machine'; kutx- 'to drum' + yakʷ → kutxu:yak 'drum'; č'atq- 'to spoon up' + yakʷ → č'. qa:yak 'spoon'. The rule does not affect polysyllabic stems (cf. weʔič- to sleep' + yakʷ → weʔičyak 'mattress') nor does it apply between suffixes (cf. ƛic+a:s+yakʷ → ƛica:syak 'tablecloth'). The examples cited by Jacobsen showing delabialization applying before vowel insertion are lakʷ- 'lick' + yakʷ → laka:yak 'tongue', q'akʷ- 'to whittle' + yakʷ → q'aka:yak 'knife' and the reduplications lakʷ+lakʷ 'to lick repeatedly' → laka:lak, q'akʷ + q'akʷ 'to whittle repeatedly' → q'aka:q'ak. Unlike Chukchee vowel epenthesis, Makah vowel insertion is a rule with no apparent phonetic intent. One might thus conclude that the proposed ordering constraint only obtains between phonological processes. Nevertheless, the constraint also holds for many morphologically governed processes and thus it does not seem proper to exclude them from the scope of the proposed ordering constraint.

7. Although it is difficult to assign any definite semantic content to the l and the ŋ separately, there are nevertheless good reasons for dividing them into distinct morphological elements. Note in particular that the addition of the l+ŋ complex triggers the vowel harmony rule: eŋor 'star' aŋat-l-eŋ-en. This same property is exhibited by a pair of augmentative suffixes that share the ŋ element. j+ŋ has a "positive" shade of meaning and c+ŋ a "negative" one: titi-t 'needles', tete-j-ŋ-et 'big needles'; tung-et 'comrades', toog-ej-ŋ-et 'big comrades'; kuke-t 'kettles', koka-c-g-et 'big kettles'; tiŋur-ti 'bows', teŋor-c-eŋ-et 'big bows'. It thus seems reasonable to segment the ŋ common to all of these suffixes and endow it with the lexical property of triggering vowel harmony. Perhaps this same element is to be identified as the historic source for the vowel harmony in the dative and ablative cases: cf. Chukchee kupre-n 'net', abs. sg., kopra-gte dative, kopra-jpe ablative versus Koryak milut 'hare', melota-jteŋ, melota-jpeŋ.

8. Paired body-part words often employ the l+ŋ complex as a singulative: cf. relw-el-g-en/relw-et-l-eŋ-en, rilw-et 'eyebrow'; meng-el-g-en/meng-et-l-eŋ-en, meng-et 'hand'; relp-el-g-en/relp-et-l-eŋ-en, rilp-et 'shoulder'.

9. The fact that vowel epenthesis bleeds both local assimilation and dissimilation rules militates against another possible explanation for the ordering principle. If one adopts an autosegmental approach to phonology (cf. Goldsmith 1979), it is reasonable to view processes of assimilation as the spreading of an autosegment. For example, the Chukchee assimilation of ŋ+t to n+t might be viewed as the deletion of the point of articulation feature [velar] from a nasal standing before a consonant. By general principles, the point of articulation feature of the following consonant, in this case [dental], will automatically spread to the nasal, as depicted below.

```
[velar]  [dental]            [dental]          [dental]
   |        |                   |                 |
   ŋ        t     -->    N      t     -->    n    t
```

We could then say that the representation [dental] forms a unit and that

```
n   t
```

vowel epenthesis may not enter inside this unit. However, such an explanation will not extend to cases where the local consonantal rule takes the form of strengthening or dissimilation, for such processes cannot be viewed as the spreading of an autosegment. If anything, they would involve the "mitosis" of an autosegment with subsequent polarization, yielding a representation which should be eligible for epenthesis.

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THE GENETIC AFFILIATION OF KAMCHADAL: SOME MORPHOLOGICAL EVIDENCE

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1. The Problem

Much of the work on the so-called Paleosiberian languages has been concerned with proposing and justifying genetic relations between Paleosiberian languages and either other Paleosiberian languages or languages outside this group. Indeed, this work has tended to take precedence over the production of solid descriptions of the individual languages, and has no doubt been fostered by the dissatisfaction of having a number of language isolates on the periphery of an area, Northern Eurasia, which is otherwise covered by large language families (Indo-European, Uralic, Turkic, Mongolian, Tungusic - whether or not the last three are regarded as branches of a single, Altaic, family). Yet the proposed affiliations have remained speculative, and none has gained widespread acceptance.

Within the Paleosiberian collection, however, there seemed to be at least one group of languages where one could speak of a genetically-related language family, namely the Chukotko-Kamchatkan languages Chukchee, Koryak, and Kamchadal (Itelmen).[1] Chukchee and Koryak are very close to one another on all levels of grammar and lexicon, indeed they are much closer than many speech forms elsewhere that would be considered dialects of a single language. Kamchadal is clearly very different from Chukchee-Koryak, but still, on the basis of a number of lexical and morphological similarities, its genetic relationship to Chukchee-Koryak was until relatively recently taken for granted.

The first major challenge to this position was provided by Worth (1959, 1962), who argued, primarily on the basis of comparison of basic vocabulary, that the alleged genetic relationship of Kamchadal to Chukchee-Koryak remains unproven. Since Worth's position will be one pole in the ensuing discussion, it will be valuable to outline his position in somewhat more detail. The most negative stance is taken in Worth (1959), where it is argued that even the genetic relationship of

the various Kamchadal dialect groups to one another is unproven, and that the similarities among the dialect groups might be the result of convergence (areal contact) rather than of differentiation of a single proto-language (32-34); it would thus be more accurate to speak of different Kamchadal languages, rather than dialects. Unfortunately, of the three main dialect groups (northern, southern, western), only Western Kamchadal survived well into the twentieth century (up to the present day, though very precariously), and it is only for Western Kamchadal that we have detailed grammatical descriptions (especially Volodin 1976). For Northern and Southern Kamchadal we are virtually restricted to vocabulary lists. In the discussion of morphology below, I shall restrict myself to Western Kamchadal.

Worth (1962) apparently softens this position somewhat, by accepting the genetic unity of Kamchadal (at least as a dialect cluster), but still denying the genetic unity of Kamchadal (Worth's 'luoravetlane du sud') with Chukchee-Koryak (Worth's 'luoravetlane du nord'). His evidence is primarily the small percentage of basic lexical cognates between Kamchadal and Chukchee-Koryak, though also phonological and morphological typological differences and the (claimed) low level of morphological correspondences, especially in the noun. The essence of Worth's claim is contained in the following passage, which I reproduce in full:

'Given that the close relationship between Koryak and Chukchee in the north is universally recognized (especially for the nomad dialects of the two languages), the large lexicological differentiation between Koryak and Kamchadal that was demonstrated in the present study leads us to suppose that earlier on there existed not a single Proto-Luoravetlan language (the ancestor language of Chukchee, Koryak, and Kamchadal), but very probably two languages, or at least two groups of dialects, which we shall call Northern Luoravetlan and Southern Luoravetlan. From the former group derive modern Chukchee and Koryak; the second group comprised the dialects which were distributed or partitioned into Southern Kamchadal, Western Kamchadal, North-Eastern Kamchadal, Uka Kamchadal, and...the mixed Kamchadal-Koryak dialect of Karaginsky Island' (Worth 1962: 597; my translation - BC).

In the present paper, I shall argue that the level of morphological cognates between Kamchadal and Chukchee-Koryak is in fact considerably higher than claimed by Worth, and that moreover some of these morphological parallels embody a formal structure or a function sufficiently abstract to make it unlikely that the similarity could be due to borrowing. I am thus claiming that Kamchadal is genetically

related, albeit distantly, to Chukchee-Koryak. Before turning to the morphological evidence, some preliminary remarks are in order. It is probably impossible ever to prove that two languages are genetically unrelated: with the passage of time, genetically related languages grow farther and farther apart, until eventually the level of similarity would be no greater than that due to chance. Thus the main line of my presentation will be not so much a critique of Worth's arguments, but rather a positive presentation of morphological similarities between Kamchadal and Chukchee-Koryak.

On the question of reconstructing Proto-Chukotko-Kamchatkan, I am inclined to agree with the tenor of Worth (1959: 32-33) that this is impossible, but this does not imply that Kamchadal and Chukchee-Koryak are unrelated, i.e. that there was no Proto-Chukotko-Kamchatkan. If English and Russian were the only attested Indo-European languages, we would probably be unable to reconstruct any significant part of Proto-Indo-European with accuracy. Reconstruction presupposes much more than the establishment of genetic affiliation, and the poor (and unimprovable) nature of our materials on the Kamchadal dialects means that as a practical possibility the reconstruction of any significant portion of Proto-Chukotko-Kamchatkan is unfeasible.

With regard to lexical cognates, I shall have nothing to say in this paper: the low level of cognates between Kamchadal and Chukchee-Koryak in the basic vocabulary could mean either that they are related genetically, but very distantly, or that they are completely unrelated, but some borrowing has taken place. I know of no way of deciding the issue, in this case. One must agree with Worth (1962: 580-582) that Kamchadal is rather different typologically from Chukchee-Koryak: Kamchadal has complex consonant clusters unknown to Chukchee-Koryak; Kamchadal has much internal flection; Kamchadal lacks the consistent vowel harmony system of Chukchee-Koryak; Kamchadal lacks productive incorporation. However, just as typological similarity is no evidence in favor of genetic affiliation, so too typological dissimilarity is no evidence against it. Kamchadal and Chukchee-Koryak are

no more different typologically than are many Indo-European or Uralic languages.

2. Morphological Evidence

The following discussion is not based on an exhaustive comparison of nominal and verbal morphology of Kamchadal and Chukchee-Koryak, but represents rather a number of reliable comparisons between the two groups. Further work will be necessary in order to establish how extendable this list is.

2.1. Nominal Morphology

One of Worth's main arguments against accepting the genetic relationship of Kamchadal and Chukchee-Koryak is that there are hardly any similar suffixes in declension between the two groups (1962: 581). In one instance, this claim is simply an oversight, namely where Worth claims that Chukchee-Koryak has no cognate of the Kamchadal locative -enk (and allative-dative -anke). As is shown by Volodin (1976: 143), the original Kamchadal locative is not -enk/-ank, but rather just -k: this ending survives in the plural, e.g. sxli-ʔn-k 'sledge-runner-PLURAL-LOCATIVE'; in the singular it is apparently preceded by the possessive suffix -en/-an, though synchronically this segmentation is probably no longer perceived, e.g. sxli-ŋ-enk 'sledge-runner-SINGULAR-LOCATIVE'. In any event, Kamchadal has a locative suffix -k, identical with Chukchee and Koryak -k.

The Kamchadal allative-dative -anke is likewise -ke in the plural (sxle-ʔn-ke) with a frozen possessive suffix in the singular (sxle-ŋ-anke). Here there is no close cognate in Chukchee or Koryak, both of which have innovated a new allative suffix (see below). For personal pronouns, Chukchee does retain a dative (distinct from the allative) in -kə, e.g. yəmə-kə 'I-DATIVE' (cf. yəmə-k 'I-LOCATIVE'), where the Chukchee opposition Locative -k/Dative -kə might be compared to Kamchadal -k/-ke. However, the Koryak form corresponding to Chukchee yəmə-kə is yəm-kəŋ (the locatives are identical, yəmə-k), where -kəŋ is considerably less like Kamchadal -ke. Since Chukchee frequently loses final -ŋ, the Koryak form must be older, and the schwa of the final syllable would originally have been a predictable epenthetic vowel. There is thus no evidence of a common allative-dative suffix in

Kamchadal and Chukchee-Koryak.

The usual Chukchee-Koryak allative and ablative suffixes are very different from their Kamchadal equivalents: allative, Chukchee -ətə/-ɣtə, Koryak -ətəŋ/-jtəŋ, Kamchadal -(an)ke; ablative, Chukchee -əpə/-jpə/-ɣəpə, Koryak -ŋqo, Kamchadal -xʔal. However, the Chukchee and Koryak forms have relatively transparent etymologies, from the verbal stems et- 'go to', ep- 'go from', and the adverb qojəŋ 'from there to here' (the last being rather more dubious) (Skorik 1961: 435). Chukchee and Koryak have thus replaced whatever original allative and ablative suffixes they had, and given the still transparent etymology of the new suffixes this replacement must have been relatively recent. Moreover, the two languages have different suffixes in the ablative (though Chukchee has traces of -ŋqo in adverbs, e.g. məŋqo 'whence'), so that even languages as closely related as Chukchee and Koryak diverge on this morphological point. The absence of cognates with Kamchadal here is no argument against genetic affiliation.

Chukchee, Koryak, and Kamchadal all have a number of suffixes for the absolutive singular, which are distributed primarily lexically (in addition, many nouns have no suffix in the absolutive singular). Two Kamchadal absolutive singular suffixes have close Chukchee-Koryak cognates: Kamchadal -ŋ, Chukchee -ŋə, Koryak -ŋə/-ŋə; Kamchadal -iŋin, Chukchee -ɬɣən/-ɬəŋən/-əʈɬəŋən, Koryak -iŋən. The second of these betrays not only formal parallelism: in Kamchadal, it is used largely to indicate the singular of paired objects, e.g. kɬime-iŋin 'kidney' (Volodin 1976: 190); in Chukchee, too, a significant number of nouns in -ɬɣən are of this type, e.g. mənɣə-ɬɣən 'hand', ʈeɣə-ɬɣən 'ski'.

Both Kamchadal and Chukchee-Koryak have two comitatives, with parallel formation. The first comitative has a prefix (Kamchadal k-/x-, Chukchee-Koryak ɣə-/ɣa-, Koryak also the compound prefix ɣejqə-/ɣajqə-), followed by the instrumental form of the noun; the Kamchadal instrumental in -ɬ bears no formal similarity to Chukchee-Koryak -(t)e/-(t)a. The second comitative has the same prefix (though Koryak here has a compound prefix ɣawən-), followed by a suffix not otherwise

clearly attested in these languages (Kamchadal -čom, Chukchee-Koryak -ma). Any claim about formal relatedness of Kamchadal k- with Chukchee-Koryak ye-, or of -čom with -ma, would be unsupported speculation. At present, we can thus only point to a typological similarity in the formation of the comitatives, and the fact that there are two of them with somewhat similar functions, in terms of equal versus subordinate accompaniment (Skorik 1961: 169-170; Volodin 1976: 153-154). As indicated in section 1, such a typological similarity provides no evidence for genetic relatedness.

2.2. Verbal morphology

The most obvious similarities between Kamchadal and Chukchee-Koryak verbal morphology, as acknowledged by Worth (1962: 581), are in the encoding of subject and object in the verbal form. Both groups of languages have, basically, the following pattern: a set of prefixes (varying according to mood) to encode the subject of both intransitive and transitive verbs; a set of suffixes that encode the subject of intransitive verbs but the object of transitive verbs. (Intransitive subjects are thus encoded twice.) To this generalization, there are several exceptions, including some very specific exceptions that are common to both Kamchadal and Chukchee-Koryak. The general pattern outlined above could, of course, be a typological similarity resulting from contact or even chance.

In what follows, however, I shall demonstrate that there are also marked formal similarities. Consider, in particular, the following table, which gives information on the prefixes (and also second person plural suffix) used in both intransitive and transitive verbs:

	Chukchee-Koryak		Kamchadal	
	Indicative	Imperative	Indicative	Imperative
Sg.1	t-	m-	t-	m-
2	∅-	q-	∅-	k-.
3	∅-	n-	∅-	xǎn-
Pl.1	mat-	man-	n-	mǎn-/xǎn-
2	∅--tak/-tka	q--tak/-tka	∅--sx	k--sx
3	∅-	n-	∅-/n-	xǎn-

Inv. ne-/na- ʔən-[2]

Some of the discrepancies between Kamchadal and Chukchee-Koryak can be eliminated in a preliminary pass as irrelevant to the issues at hand. Thus the Kamchadal alternative first person plural imperative prefix xǎn- seems to be a recent spread (inexplicable, as far as can be seen) of the third person form into the first person plural, especially in the southern (Kovran-Khayryuzova) dialect of Western Kamchadal (Volodin 1976: 226); in any event, the form mǎn-, paralleling Chukchee-Koryak mən-, is also found.

A more crucial discrepancy might seem to be provided by the third person and 'inverse' (Inv.) forms: Chukchee-Koryak third person plural indicative ∅- corresponds to Kamchadal ∅- in intransitive verbs, but n- in transitive verbs (the only intransitive-transitive prefix distinction in Kamchadal); the Chukchee-Koryak third person imperative n- corresponds to the phonetically dissimilar Kamchadal prefix xǎn-; Kamchadal has nothing corresponding to the Chukchee-Koryak inverse prefixes. The claim that Chukchee and Koryak have inverse prefixes was first made in Comrie (forthcoming), which also provides, in passing, a solution to the establishment of cognates among the various third person forms. An inverse form - the term is taken from Algonquianists' vocabulary - is one used to encode a situation where the agent of a verb is low in animacy relative to that verb's patient. In Chukchee-Koryak (and, I would claim, Proto-Chukotko-Kamchatkan), the hierarchy was first person > second person > third person singular > third person plural. This is seen most clearly in Koryak, where the inverse prefix is used for second person acting on first, for third person singular acting on first or second person, and for third person plural agents with any patient.[3] Note that the inverse prefixes can thus, by definition, be used only with transitive verbs. In Comrie (forthcoming), I claim that in Kamchadal the inverse indicative prefix, which by the above would invariably occur with third person plural transitive subjects, was reinterpreted as a third person plural transitive subject marker, i.e. Kamchadal n- as a marker of third person subject is cognate with Chukchee-Koryak ne-/na-. This explanation

also accounts for an anomaly within Kamchadal: only the third person plural indicative distinguishes transitive and intransitive prefixes. In the imperative, a different reanalysis seems to have taken place, with the inverse prefix being reinterpreted as (extended to) a general third person prefix. I would thus claim that Kamchadal xǎn- is cognate with Chukchee-Koryak ʃən-, in agreement with Volodin (1976: 226). On the basis of the above discussion, we can establish the following table of cognates:

Chukchee-Koryak	Kamchadal
ø-	ø-
m-	m-
mən-	mǎn-
mət-	n-
n-[4]	
nə-/nə-	n-
q-	k-
t-	t-
-tək/-tkə	-sx
ʃən-	xǎn-

The only obvious discrepancy is Chukchee-Koryak mət-, but Kamchadal n-, for which I have no explanation. Otherwise, the parallelism is remarkable.

In the above list of correspondences, the second person plural suffixes (Chukchee-Koryak -tək/-tkə, Kamchadal -sx) are worthy of fuller attention. Formally, they are not dissimilar (especially bearing in mind that Chukchee-Koryak schwa is often an epenthetic vowel). Much more striking, however, is the parallelism in their distribution. In both groups, transitive subjects are not usually encoded by means of suffixes - except in the second person plural. In Kamchadal, the suffix -sx simply cooccurs with the appropriate object suffix: this is -ø in the third person singular (anya-sx 'you-all praised him'); in the third person plural the suffix -iʔn follows -sx (anya-sx-iʔn 'you-all praised them'); in the first person, the suffix (singular -miŋ, plural -miʔŋ) precedes -sx (anya-miŋ-sx 'you-all praised me', anya-miʔŋ-sx 'you-all praised us'); for comparison, an intransitive form

would be iɨ-sx 'you-all went'. In Chukchee-Koryak, the only relevant transitive forms are second person acting on third person, since second person acting on first counts as inverse. In such transitive forms, the only suffix used is -tkə, e.g. ləʃu-tkə 'you-all saw him/them'.[5] An intransitive form would be vs-tək 'you-all were'. The intransitive form -tək is the expected form, with the epenthetic schwa not in word-final position. The suffix -tkə suggests that a word-final consonant has been lost historically (cf. the discussion of Chukchee yəmənkə, Koryak yəmkən, in section 1); perhaps this was a third person ending,[6] lost perhaps as part of the process whereby Chukchee-Koryak established the constraint that a verb-form can have at most one person-number suffix. In any event, Kamchadal -sx and Chukchee-Koryak -t(ə)k(ə) are not only similar phonetically, but also have in common a distributional pattern which is quite unique within either group. So highly specific an idiosyncrasy within the morphology seems an unlikely candidate for borrowing.

The other person-number suffixes, i.e. those encoding intransitive subject or transitive object, show fewer similarities: some of them may be recent innovations in Chukchee-Koryak, since they have transparent etymologies, e.g. the first person singular object suffix -yən, cf. the pronoun yən 'I'. One clear parallel, however, is the portmanteau suffix used for third person singular subject acting on third person singular object: Kamchadal -nən, Chukchee-Koryak -nin/-nən.

As far as tense-mood affixes are concerned, there are few obvious formal similarities between Kamchadal and Chukchee-Koryak, although it should be noted in this connection that only very few tense-mood affixes exist in either group, that some have relatively transparent recent etymologies (e.g. Chukchee-Koryak future rə-(Koryak jə) (-ŋ) from desiderative rə/jə -ŋ) and that the Chukchee so-called Present-II (Imperfect) with the prefix n- is so recent a reinterpretation of a deverbal adjective that it has no equivalent in the Koryak conjugational system. One typological parallel is the fact that the unmarked indicative forms are interpreted as past tense, though such typological parallels are not evidence of gene-

tic relationship. The only possible formal parallel is the conditional marker Kamchadal k'-, Chukchee ʔ-, Koryak ʔ-, which appears after the person-number prefix, e.g. Kamchadal t-k'-nu-k(ičen) 'I would have eaten', Chukchee t-ʔ-anja-vet 'I would praise you'.

Although the present paper has concentrated primarily on inflectional morphology, we may conclude this section by noting two possible parallels in the derivational morphology of verbs. Kamchadal has a causative prefix šn- (Volodin 1976: 201-202), sometimes also with an additional suffix or change in suffix, e.g. soj- 'lie', šn-soj-ne- 'lay'. In Chukchee-Koryak, the causative prefix is -n- (but r- when word-initial), again sometimes with an additional suffix or change of suffix, e.g. Chukchee skvet- 'set out', r-skvet-av- (medial stem -n-skvet-av-) 'send out'.

In Chukchee-Koryak the prefix in(e)-/en(a)- serves to form intransitive verbs with unspecified object from transitive verbs, e.g. Chukchee vetʔet- 'butt (someone/something)', ene-vetʔet- 'butt, engage in butting'. Kamchadal has a series of formally similar prefixes, apparently differentiated lexically, and often accompanied by an additional suffix (unlike Chukchee-Koryak). The prefixes are in-, an-, ne-, na-, e.g. tkita- 'throw (something)', in-tkita-ʔi- 'throw, engage in throwing' (Volodin 1976: 203-205). While one might easily imagine a causative affix being borrowed, or even chance similarity between Kamchadal šn- and Chukchee-Koryak -n-/r-, a prefix with so abstract a function as a detransitivizer is a much less likely candidate for borrowing, so we may be reasonably sure that the Kamchadal and Chukchee-Koryak detransitivizing prefixes are genetic cognates.

3. Conclusions

I have argued that similarities in detail of form and function of a variety of affixes in Kamchadal and Chukchee-Koryak are good evidence of the genetic relationship of these two language groups, despite the low level of lexical cognates. At one time there was a Proto-Chukotko-Kamchatkan, in the same sense and to the same extent as there was a Proto-Indo-European language. The fact that we have

data on only two very divergent branches of this language family means that we will almost certainly never be able to effect a detailed reconstruction of Proto-Chukotko-Kamchatkan. But this does not prevent us from formulating hypotheses about specific aspects of the relatedness of Kamchadal and Chukchee-Koryak, or even from reconstructing restricted subparts of their common ancestor.

Footnotes

1. Skorik (1958) advocates treating Alutor and Kerek as separate languages within Chukotko-Kamchatkan, rather than as dialects of Koryak and Chukchee respectively. Whatever stand is taken on this point does not affect the extremely close genetic relation among Chukchee, Koryak, Alutor, and Kerek.

The basic reference sources I have consulted are Skorik (1961, 1977) for Chukchee, Žukova (1972) for Koryak, and Volodin (1976) for Kamchadal.

2. This is the Koryak form. Chukchee has ʔən-, by regular phonetic correspondence.

3. In Chukchee, several expected transitive verb forms have been replaced by pseudo-intransitive forms (Comrie 1979: 230-232), so that Chukchee does not display as wide range of forms as Koryak, which makes much less use of pseudo-intransitives.

4. Since Kamchadal xǎn- has been generalized as the third person subject marker in the imperative, this prefix replaces whatever prefix would have corresponded to Chukchee-Koryak n-.

5. This is the Koryak form. Chukchee has ʔʔu-tkə, by regular phonetic correspondence.

6. This possibility was suggested to me by V.P. Nedjalkov.

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N-AGREEMENT IN OLD GEORGIAN

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1. Introduction. Sapir (1917) distinguished five systems of case marking, which he defined by means of the chart below, where A, B, and C represent cases.

(1)

	Obj.tr.	Subj.intr. Inactive	Subj.intr. Active	Subj.tr.
1.	A		A	B
2.	A	A	B	B
3.	A		B	C
4.	A		B	B
5.	A		A	A

The type 1 system is today usually called 'ergative', the type 4 system 'accusative' or 'nominative-accusative'. To type 2 has been given the name 'active-inative' or 'active'.

The same system of classification can be extended to verbal agreement, where A, B, and C represent distinct sets of agreement markers. For example, a language like English, in which -s is triggered by transitive subjects (he builds it), active intransitive subjects (he works), and inactive intransitive subjects (it spreads), can be said to have type 4 agreement. In this instance, -s is a member of set B, while set A is null.

The purpose of the present paper is to discuss one example of active type verb agreement.[1] In Old Georgian, attested from the fifth century AD, the verbal suffix -n indicates the plurality of certain nominals.[2] It is shown here that -n is triggered by final direct objects, by initial direct objects that are the final subjects

of i- and e-intransitives, by initial direct objects that are the final subjects of analytic passives, by initial direct objects that are the final subjects of stative passives, and by direct objects that are the final subjects of inversion constructions. This would suggest that all nominals that are direct objects at any level trigger -n. However, two kinds of direct objects fail to trigger -n. It is shown that one sort of failure of the direct object marker -n to occur is to be explained on phonological grounds. The other must be a grammaticalized exception, the first stage in the eventual total loss of -n in Georgian. If this is correct, n-Agreement must have been an active (type 2) agreement rule shortly before the Old Georgian period.

2. Background on Old Georgian Grammar. In Old Georgian, as in Modern Georgian, the indicative mode consists of two Series of tense-aspect categories. The two indicative Series differ from one another in aspect, Series I being imperfective, Series II essentially perfective (cf. Mačavariani (1974)). They differ from one another in case marking, Series I being strictly of the accusative type, and Series II strictly of the active type. This is stated in (2), using the format of (1).

(2)

	Obj. tr.	Subj. intr. Inactive	Subj. intr. Active	Subj. tr.
Series I (type 4)	OBJECTIVE	NOMINATIVE		NOMINATIVE
Series II (type 2)	NOMINATIVE	NOMINATIVE	ACTIVE	ACTIVE

Details of case marking in Modern Georgian, which also apply to Old Georgian, can be found in Harris (to appear b). The two Series also differ with respect to n-Agreement, as shown below. In the glosses of examples, the Series of a verb form is indicated by a Roman numeral.

Person Agreement in Old Georgian, as in Modern Georgian, is ıtive (type 4) in both Series I and Series II. In all verbal ›ries, all final subjects trigger one set of person agreement ·s (so-called v-row markers), and all final direct objects trig- ıother set (so-called m-row markers).

It has been shown that in Modern Georgian, final subjects of .ve intransitive verbs are initial intransitive direct objects :ed to subject by Passivization or Unaccusative. This analysis :ed on a theory of language universals proposed in Perlmutter · and Perlmutter and Postal (1977), (to appear a), and (to ap- ›). The analysis is fully justified for Modern Georgian in (to appear a) and (to appear b). The same analysis is assumed d Georgian, since the system remains the same in crucial re- . Similar analyses of both Old and Modern Georgian are made in ional frameworks.[3]

al Direct Objects that Trigger -n. In Old Georgian, the suffix triggered by plural direct objects. This is shown by the con- between (3) and (4). The potential trigger and the -n suffix derlined in these examples and throughout.

tkunes švid-ta kuxil-ta hma-ni
they-uttered-them-II seven-PL.ACT thunder-PL.ACT voice-PL.NOM

mat-ni
their-PL.NOM[4]

'Seven thunders uttered their voices' (Rev 10: 3)

vixilen otx-ni angeloz-ni
I-saw-them-II four-PL.NOM angel-PL.NOM
'I saw four angels' (Rev 7: 1)

ra-y-ege tkues švid-ta mat
which-NOM they-uttered-it-II seven-PL.ACT the.PL.ACT

kuxil-ta
thunder-PL.ACT
'Which the seven thunders uttered' (Rev 10: 4)

(b) vixile sxua-y angeloz-i
I-saw-him-II other-NOM angel-NOM
'I saw another angel' (Rev 7: 2)

The examples in (3) have plural direct objects (marked with the nominative plural, -ni); they trigger -n in the governing finite verb form. The examples in (4) have singular direct objects (marked with the nominative singular, -i or -y); there is no -n in the verb forms that govern them.

The suffix -n is triggered in the set of tense-aspect categories known as Series II, but not in those known as Series I. This is demonstrated by the contrast between (3b), which is in Series II, and (5), which is in Series I.

(5) romal-ni hxedvides mat
which-PL.NOM they-saw-it-I them-PL.OBJ
'Which saw them' (Rev 11: 11)

In (5), like (3b), the direct object is plural. The verb root in (5) is suppletively related to that in (3b), though the vast majority of verbs have a single root for Series I and II. In (3b), the plural direct object triggers -n, but in (5) it fails to do so. In fact, -n never occurs in Series I in this function. All tense-aspect categories of Series II, including the permansive, aorist, optative (future) and imperative, may bear -n.

The -n suffix is triggered by plural direct objects of all persons. This is established by the following examples, where (6) and (7) illustrate first person plural direct objects, and (8) illustrates second person plural direct objects.

(6) daikal da gviqiden čuen γmrt-isa
you-killed-II and you-redeemed-us-II us.PL.NOM God-GEN
'Thou wast slain, and hast redeemed us to God' (Rev 5: 9)

(7) da mqvna čuen sameupo mydel γmrt-isa[5]
and he-made-us-II us.PL.NOM ruler.NOM priest.NOM God-GEN
'And hath made us kings and priests unto God' (Rev 1: 6)

(8) romel-man-ca dagamtkicnes tkuen
who-ACT-also he-confirmed-you-II you.PL.NOM
'Who shall also confirm you' (I Cor 1: 8 CD)

In (6-7) the direct object is čuen 'us', and in (8) tkuen 'you(PL)'. Both trigger -n, as shown. (3) shows that third person plurals also trigger -n.

In (7), the prefix m- (mqvna) is a first person object agreement marker, also used in the singular. In (6), a different prefix, qv- (qviqiden) occurs. This is a fusional affix indicating both first person object and plurality of that object; it is never used with a singular object. Thus, in (6) direct object plurality is marked redundantly--both by the first person plural object marker qv- and by the general plural object marker -n.

In the examples cited thus far, the direct object whose plurality triggers -n is present in the surface structure. N is also used when the unemphatic plural direct object is dropped, as in

(9) da šemosna mit
and he-clothed-them-II it.INST
'And he clothed them with it' (Gen 3: 21)

In Series II, all direct objects are marked with the nominative (or inactive) case, as stated in section 2. In Old Georgian this case may take different forms. Most common is the old form -ni, a fusional marker that indicates both plurality and the nominative case. A newer form is -ebi, analyzable as -eb, a generalized plural, and -i, the nominative case marker. Under certain circumstances, the bare stem may also be used as a plural (cf. Imnaišvili (1957) and footnote 5). It is often said that only the -ni plural triggers -n in the verb form; Šanize (1976), p. 159 cites the following examples in support of this (glosses and translations added):

(10) šen šehmusren tav-ni vešap-ta-ni
you.ACT you-broke-them-II head-PL.NOM dragon-PL.GEN-PL.NOM
'Thou brakest the heads of the dragons' (Psalms 73: 13)

(11) šen šehmusre tav-eb-i vešap-isa-y mis
you-broke-it-II head-PL-NOM dragon-GEN-NOM the.GEN
'Thou brakest the heads of the leviathon' (Psalms 73: 14)

In (10) the direct object in -ni triggers -n in the verb form. In (11) the direct object in -ebi fails to trigger -n. Note, however, that there are nominative plural nominals that do not bear the -ni ending, and which do trigger -n in the verb. The first and second person plural pronouns in (6-8) do not bear the -ni suffix, and they do trigger -n in the verb form.[6] In (9) the trigger nominal is not even present in the surface structure, yet it triggers -n. In (12) bare stem (crpelebiti) plurals trigger -n.

(12)(a) romel-ta esxnen col[7]
which-PL.DAT they-have-them-II wife
'Those who had wives' (I Corin 7: 29)

(b) ixilna svimon da andrea
he-saw-them-II Simon and Andrew
'He saw Simon and Andrew' (Mk 1: 16)

From these examples we must conclude that the correct generalization is not that only plurals in -ni trigger -n, but that plural direct objects trigger -n, except those in -ebi (cf. (11)).[8]

Some linguists have suggested that in Old Georgian the -ebi plural is not a true plural, but rather indicates a collective.[9] If this view is correct, then the verb marks plurality only for the true plural, not for the collective. The 'plural' in -ebi, when used as a subject, also fails to trigger any of the markers of subject plurality (cf. references cited in footnote 9).

Finally, derived direct objects trigger -n as well as nominals that are direct objects at all levels of derivation. The occurrence of -n with derived direct objects is illustrated in (13-14).

(13) ganvamravlne mcuxareba-ni ǯen-ni
I-CAUSED-increase-them-II trouble-PL.NOM your-PL.NOM
'I will greatly multiply your sorrow' (Gen 3: 15)

(14) da ganrcxnes mat samosel-ni mat-ni
and they-washed-them-II they.PL.ACT clothes-PL.NOM their-PL.NOM

da ganaspeteknes
and they-CAUSED-white-them

'And have washed their robes and made them white' (Rev 7: 14)

The verb in (13) and the second in (14) are organic causatives. Their final direct objects are plural and trigger -n.

In sum, true plural final direct objects in Series II trigger -n in the verb form that governs them.

4. Initial Direct Objects that Trigger -n. Subjects of inactive intransitive verbs also trigger -n in the verbs that govern them. These can be identified on independent grounds as initial direct objects. The derivations assumed here are fully justified in Harris (to appear b). Initial direct objects that advance to subject may occur with a verb form in any one of a number of morphological categories, all inactive intransitives. It is shown here that plural initial direct objects trigger -n whether they are the final subjects of i-intransitives, e-intransitives, analytic passives, stative passives, or inversion constructions.

The examples in (15) illustrate the occurrence of -n with i-intransitives. Intransitives of this subclass have the formant i (ǯeiɣrnes, ǯeimusrnian, daibadnes).

(15)(a) da qovel-ni mta-ni da borcu-ni adgilta
and all-PL.NOM mountain-PL.NOM and hill-PL.NOM place

tvistagan ǯeiɣrnes.
self's-from they-moved-II (Rev 6: 14)

'And every mountain and hill moved out of their places'

(b) vitarca čur-ni igi mekece-ta-ni
as pot-PL.NOM the.NOM potter-PL.GEN-PL.NOM

šeimusrnien
they-break-II (Rev 2: 27)

'As the vessels of potters , they shall be broken to shivers'

(c) šen dahbaden gověl-ni-ve, da neb-ita
you.ACT you-created-them-II all-PL.NOM and pleasure-INST

šen-ita iqvnes da daibadnes
you-INST they-were-II and they-created-II

'Thou hast created all things, and for thy pleasure they are and were created.' (Rev 4: 11)

The verb 'be' is also in the morphological category of i-intransitives. It is illustrated in (15c) and (16).

(16)(a) šisvel iqvnes
naked they-were-II (Gen 3: 7)
'They were naked'

(b) da kmriss šenisa mimart iqos mikceva šeni
and husband your toward it-be-II turning your.NOM
'And thy desire shall be to thy husband' (Gen 3: 16)

In (16b) the final subject is singular and does not trigger -n; it contrasts with (16a), which has a plural final subject and the -n marker.

In Old Georgian, plural final subjects trigger plural agreement, marked as -(i)t in the first and second persons and variously (-es, -en, etc.) in the third. As shown here, plural direct objects trigger -n. If a given nominal is a direct object initially and subject finally, it triggers both types of plural markers. In (15a) the plural nominal gověl-ni mtani da borcuni 'all the mountains and hills' triggers -n, the marker of plural direct objects, and -es, the marker of third person plural subjects in the aorist: šs-i-ɣr-n-es. In inactive intransitive verb forms, all (plural) subjects originate as (plural) direct objects Therefore all plural subjects trigger two plural markers. It is for this reason that traditional grammars

of Old Georgian list conjugations like (17) for i-intransitives.

(17)	Present (Series I)	Aoriet (Series II)
Singular		
1.	daviçerebi	daviçere
2.	daiçerebi	daiçere
3.	daiçerebis 'it is written'	daiçera 'it was written'
Plural		
1.	daviçerebit	daviçerenit
2.	daiçerebit	daiçerenit
3.	daiçerebian	daiçernes

(Šaniʒe (1976), p. 110-111)

As (17) shows, in Series I the plural paradigm contrasts with the singular of the same person by just one morpheme, the final suffix -(i)t or -an. But in Series II, each plural contrasts with the singular of the same person by two morphemes: -n and -(i)t or -es.

In Old Georgian, the derivation of the e-intransitive is essentially like that of the i-intransitive, though most e-intransitives have a final indirect object (cf. Noraʒe (1958)). (18) shows that initial direct objects (final subjects) of e-intransitives trigger -n in the finite verb form that governs them.

(18)(a) gangexwnnes tkven tval-ni
they-opened-to you-II you.PL.DAT eye-PL.NOM
'Your eyes shall be opened' (Gen 3: 5)

(b) rayta ayematnet
so that you(PL)-added-II
'In order that you may be increased' (I Cor 14: 12)

In (18a) the initial direct object, tvalni 'eyes', is the n-trigger.

In Old Georgian, like Modern Georgian, there exists an analytic passive, morphologically a past passive participle plus a finite form of an auxiliary verb. In this construction, too, the initial direct object that is a final subject triggers -n if it is plural, as shown by

(19)(a) vidre mta-ni dabadebul iqvnes
until mountain-PL.NOM created they-were-II
'Before the mountains were brought forth' (Psalms 89: 2)

(b) igini nugešinisemul iqvnen
they-PL.NOM comforted they-are-II
'They shall be comforted' (Mt 5: 4)

In (19a) the initial direct object mtani 'mountains' triggers -n, realized in the finite auxiliary.

The stative passive, a morphologically and semantically distinct formation, also has a direct object that advances to subject. If it is plural, this nominal, too, triggers -n in Series II.

(20)(a) sxua-ni ekidnian cer-ita perh-ta
other-PL.NOM they-hang-II big.toe-INST foot-PL.GEN

mat-ta-yta
they-PL.GEN-INST (Kimeni II 107, 36)

'Others are hung by the big toes of their feet'

(b) xolo kristesane-ni... ertnes er-sa mas
and Christian-PL.NOM they-added-II nation-OBJ the.OBJ
'And Christians were among the people' (Sanije, 1935, 3veli Kartulis Krestomatia, 46, 11)

In (20a) the initial direct object sxuani 'others' triggers -n; as a final subject, it also triggers the third person plural subject marker for the permansive, -ian.

The fifth morphological category that is characterized by a direct object that advances to subject is the inversion construction. It involves as well an initial subject that is demoted to indirect object (cf. Harris (to appear b), (to appear c) for a complete analysis). The initial direct object, if plural, triggers -n in Series II. Examples are in (21).

(21)(a) rayta ečuenen kac-ta mmarxveled
so that they-appear-to him-II man-PL.OBJ to fast
'In order that they may seem to men to fast' (Mt 6, 16 OE)

(b) sult-tkuma-ni mat-ni mesmnes
prayer-PL.NOM their-PL.NOM they-heard-to me-II
'I have heard their prayers' (Acts 7: 34)

In section 3. it was demonstrated that plural final direct objects in Series II trigger -n in the finite verb forms that govern them. In this section it has been shown that -n is also triggered by direct objects that are final subjects in five morphological categories.

5. Subjects and Direct Objects that Do Not Trigger -n. The purpose of this section is to show that -n is not triggered by indirect objects, subjects of final transitive verbs, or subjects of final active intransitives.

The examples in (22) have plural indirect objects and are in Series II, but the plural nominals do not trigger -n.

(22)(a) gusuçqa čuen saidumlo-y igi
he-CAUSED-know-to us-it-II we.PL.DAT secret-NOM the.NOM

neb-isa mis-isa-y
will-GEN his-GEN-NOM

'He made known to us the secret of his will' (Ephes 1: 9)

(b) da tkuen-ca gesma sitqua-y igi
and you.PL.DAT-also it-heard-to you-II word-NOM the.NOM

čeŠmaritsh-isa-y
truth-GEN-NOM

'And you too heard the word of truth' (Ephes 1: 13)

(c) misc mat sekesta mattaebr
you-give-to him-it-II them.PL.DAT deeds their-according
'Give to them according to their deeds' (Psalms 27: 4)

(22) contains examples of all three persons. (22c) has undergone no change in grammatical relations. (22b) is an inversion construction; it shows that the initial subject that is demoted to indirect object does not trigger -n (cf. (21) above). (22a) is a causative, comparable to (13-14) above. These examples show that under no circumstances

do indirect objects trigger -n.

The examples in (23) have plural transitive subjects. The failure of -n to occur in these clauses shows that subjects of (final) transitive verbs are not n-triggers.[11]

(23)(a) da ɔmes kac-ta saxel-i γmrt-isa-y
and they-blasphemed-it-II man-PL.ACT name-NOM God-GEN-NOM
'And men blasphemed the name of God' (Rev 16: 21)

(b) miiγet tkuen siṭqua-y igi
you(PL)-received-it-II you.PL.ACT word-NOM the.NOM
'You received the word' (I Thes 2: 13)

Finally, the examples in (24) show that subjects of active intransitives do not trigger -n.

(24)(a) romlisa tana isiɜves govel-ta mape-ta
which with they-fornicated-II all-PL.ACT king-PL.ACT

kuegan-isa-ta
earth-GEN-PL.ACT

'With whom all the kings of the earth have committed fornication' (Rev 17: 2)

(b) sxua-ta mat kac-ta... are šeinanes
other-PL.ACT the.PL.ACT man-PL.ACT NEG they-repented-II

mat sakmetagan
their deeds-from

'The other men did not repent of their deeds' (Rev 9: 20)

(c) čuen viscrapet pirisa tkuen-isa xilvad
we.PL.ACT we-hurried-II face-GEN your.PL-GEN to see
'We hurried to see your faces' (I Thess 2: 17)

The verb root in (24b) is nan; no -n suffix occurs there or in the other examples. The verb forms in (24) differ from those in section 4. in that the latter are inactive intransitives, while these are active intransitives. In addition, those in section 4. have nominative case subjects and may have the -n pluralizer, while those in (24) have subjects in the active case and never have the -n marker.

In section 3. it was shown that all final direct objects are n-triggers. In section 4. it was shown that initial direct objects

ıat are final subjects are n-triggers in five morphological cate-
ıries. It has been demonstrated in this section that other subjects
ıd indirect objects never trigger -n. On this basis we might state
ıe generalization,

5) Plural direct objects trigger -n in the verb that governs
them in Series II,

ich is the equivalent of saying that plural subjects of inactive
transitive verbs and direct objects trigger -n in Series II, or

6) N-Agreement is active,

the sense defined by (1).

N-Agreement, then, is active and occurs in Series II, but
t in Series I. Case marking is also active in Series II, but not
Series I (cf. section 2.). Thus, n-Agreement and case marking
ould coincide in Series II. In all of the examples above, nomina-
ve plurals (in -ni) in Series II are n-triggers; nominals of other
ses never trigger -n.

In section 6. we shall see that neither (25) nor its equiva-
nt, (26), accounts for the failure of -n to occur in two morpholo-
:al categories.

Failure of -n to Occur. There are two morphological categories
ıre -n is expected, on the basis of the hypothesis formulated
ove, but where it fails to occur. One such morphological cate-
:y is the so-called markerless intransitive, a non-productive dyna-
: intransitive that has been replaced by other intransitives dis-
:sed above in section 4.[12] The markerless intransitive has nearly
ıd out in Modern Georgian, but is retained in some dozen verbs.
: examples in (27) show that a plural initial direct object (final
ject) with verbs of this sub-class do not trigger -n.

(27)(a) raymetu igini gan3yen
because they.PL.NOM they-satisfied-II
'For they shall be satisfied' (Mt 5: 6)

(b) tual-ni mat-ni eymoscviven
eye-PL.NOM their-PL.NOM they-consume-II
'And their eyes shall consume away' (Zak 14: 12 pb)

The nominals expected to trigger -n in (27) are underlined. It is clear from case marking, the behavior of these verbs in Series III, and the relation between the intransitive verbs in (27) and the corresponding transitives, that the nominative-nominals in (27) are initial direct objects that are final subjects (cf. Harris (to appear b), Chapter 13). Yet unlike the initial direct objects that are final subjects illustrated in (15-21), those in (27) regularly fail to trigger -n. (The suffix -en in (27) is the plural subject marker for the optative (future) of these verbs.) This fact is noted in the standard grammars of Old Georgian (Imnaišvili (1971), p. 242; Šanize (1976), p. 119; Zorrell (1930), p. 70).

The second morphological category where plural direct objects in Series II fail to trigger -n is the inceptive. The examples in (28) show the failure of -n to occur in this category.

(28)(a) da govel-ni mta-ni da bortu-ni
and all-PL.NOM mountain-PL.NOM and hill-PL.NOM

damdablden
they-BECOME-low-II

'And every mountain and hill shall be brought low' (Lk 3: 5)

(b) aramed ganmartldit
but you(PL)-BECOME-justified-II
'But ye are justified' (I Cor 6: 11)

Case marking and behavior in Series III show the nominative-nominals in (28) to be initial direct objects that are final subjects. The failure of these nominals to trigger -n is noted in standard grammars (Imnaišvili (1971), p. 240-1; Šanize (1976), p. 116-7; Zorrell

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(1930), p. 71).

In inceptives and markerless intransitives, plural nominals in the nominative case in Series II fail to trigger -n. Plural nominative-nominals in Series II trigger -n in all other morphological categories.[13] It is the problem of this lack of correlation that is addressed in the final section.

7. The History of -n in Georgian. In this section it is shown that regular phonological rules account for the omission of -n in the inceptive. It is shown that the omission of -n in the markerless intransitive is the first step in the gradual loss of n-Agreement in Georgian.

7.1. Although -n fails to occur regularly with unmarked intransitives, as shown in (27), it occasionally does occur. (29) is from the same text as (27b), but from a different manuscript.

(29) tual-ni mat-ni carmoscvivnen
eye-PL.NOM their-PL.NOM they-consume-II
'Their eyes shall consume away' (Zak 14; 12 0)

In (29) the plural initial direct object, tualni matni 'their eyes', triggers -n. (The difference between the preverb aymo- in (27b) and carmo- in (29) is not relevant.)

The occasional occurrence of -n in a morphological category where it is not regularly used is consistent with the hypothesis that (25-26) correctly state the general distribution of -n and that the unmarked intransitive is simply one of the categories in which -n disappeared first.

7.2. In this section I will establish the existence of a rule of n-deletion and show that this, together with other regular rules of Old Georgian phonology, account for the fact that -n plural marker never shows up in inceptives.

The plural suffix -n is sometimes omitted after a verb root ending in n. (30a) and (31a) illustrate the omission of -n even where it is triggered by a plural direct object.

(30)(a) da ikmnes kuxil-ni da hma-ni
and they-make-it-II thunder-PL.NOM and voice-PL.NOM
'And there were voices and thunderings' (Rev 8: 5 A)

(b) da ikmnes kuxil-i da hmani (Rev 8: 5 BC)

(31)(a) ikorçined
they-marry-II
'Let them be married' (I Cor 7: 9 AB)

(b) ikorçinned (I Cor 7: 9 CD)

The verb forms in both (30) and (31) are i-intransitives. The suffix -n is omitted in the (a) examples because it would be juxtaposed with a stem in n (kmn, korçin).

The plural marker -n is frequently omitted when it would follow the causative circumfix a...(av)in, as illustrated in (32) (Taq Švili (1974), footnote 78).

(32) taqvanis-vacemine mas qovel-ni kac-ni
I-CAUSED-worship-to him-him-II he.DAT all-PL.NOM man-PL.NOM
'I caused him to worship all men'
(Ioane Okroq. Cxor. 255v 18-19)

The verb root tem is made causative by the addition of the circumfix a...in; in this environment -n does not occur.

Another -n is used in the formation of the evidential (Series III) of one class of verbs, as in (33) from Modern Georgian.

(33) u-tamaš-n-i-s 'he apparently played'

u-čxub-n-i-s 'he apparently quarrelled'

u-brjol-n-i-s 'he apparently fought'

u-ṭir-n-i-s 'he apparently cried'

u-cigur-av-n-i-s 'he apparently skated'

But if the formant -n would be juxtaposed with n in the stem, the former deletes, as (34) shows.

(34) u-sṭven-i-a 'he apparently whistled'

u-cin-i-a 'he apparently laughed'

u-xvrin-i-a 'he apparently snored'

u-rben-ia 'he apparently ran'

(Forms in (33) and (34) from Tschenkéli (1960-74))

There are no geminate consonants in Georgian, except where they are separated by a morpheme boundary. The examples in (30-34) show that even when they would be separated by a morpheme boundary, geminate n's are generally simplified in Georgian. We can state this as

(35) N-Deletion

n --> ∅ / n__ .

There are some instances where n-deletion fails to apply, such as (18a), (21a), (30b), and (31b). Nevertheless, the rule usually applies in Old Georgian.

In Old Georgian the inceptive is formed with yet another -n suffix, which dissimilates to d after l, r, or n (Šanije (1919)). If the -n plural were used in the inceptive, such as that in (26), the plural -n would be juxtaposed with the inceptive -n: *damdabl-n-n-en.

To this is added the complication that the basic underlying form of the object plural marker is actually -en, as observed in footnote 2 En is reduced to n by ablaut when followed by a full grade suffix (Gamkrelidze (1966), Gamqrelije and Meçavariani (1965)).

The complete underlying form is thus *damdabl-n-en-en, where -n is the inceptive formant, the first -en is the object plural marker, and the final suffix is the subject plural marker in the optative (future). The input conditions are met for either n-dissimilation or ablaut. If the rules apply in the order--ablaut, n-deletion,

n-dissimilation--we would get *damdabl-n-n-en > *damdabl-n-en > damdabl-d-en, the form that is attested in (28). From this I conclude that the phonological rules applied in this order and that this accounts for the failure of n-plurals to occur in the inceptive in Old Georgian. Later in Georgian the inceptive -n was replaced by d in all phonetic environments, leaving the omission of -n in the inceptive category a synchronically unmotivated phenomenon.

7.3. It was stated above that, of the two indicative Series of tense-aspect categories, -n occurs in II and fails to occur in I. Section 6. deals with the morphological categories where -n is expected in Series II, but fails to occur. There is also a Series III which is the evidential mood. In Series III, Unaccusative applies to every clause in which its input conditions are met; every direct object is advanced to subject (cf. Harris (to appear b), Chapter 16 and Harris (to appear a)). If Series III were like Series II in having -n plurals, every plural initial direct object would be redundantly marked--with -n for object plurality and with a subject plural marker (cf. section 4.). What we find in Series III is that the occurrence of -n is governed not only by the morphological categories discussed in sections 3.-6., but also by the tense. Although the syntax of the clauses is the same in all tenses of Series III, -n occurs in some and not others (cf. Imnaišvili (1971), p. 238, 240-2; Šanidze (1976), p. 107-8, 113-4, 117-8, 120).

7.4. Čikobava (1966) cites examples that show that by the twelfth century -n plurals no longer occur in the inversion construction. Although -n was still used in the transitive and in i- and e-intransitives, it fails to occur in

(36) gvqves laškar-ni utvalav-ni
they-had-to us-II troops-PL.NOM countless-PL.NOM
'We had countless troops' (Vepxis-tqaosani, 200,2)

In (36) the plural nominative-nominal does trigger the plural subject marker, consonant with its status as a final subject, but fails to trigger -n. (36) should be compared with the earlier examples in (21).

By Modern Georgian -n had completely disappeared as a marker of direct object plurality.

7.5. On the basis of the facts stated above, n-Agreement can be reconstructed with confidnece along the lines suggested in (25-26). That is, not long before attested Old Georgian, the -n plural marker was triggered by all plural direct objects (in -ni) in Series II and III. At that time, n-Agreement was a perfectly regular rule of the active type defined in (1). Like the rule that states the distribution of the nominative case in Series II and III, it applied to all final direct objects and all final subjects of inactive intransitive verbs, and never to subjects of transitive or of active intransitive verbs.

N-Agreement began to disappear shortly before the attested Old Georgian period. Its loss was actualized gradually, in one grammatical category at a time. N-Agreement disappeared first in the markerless intransitive and in certain tenses of Series III (cf. sections 6. and 7.3.).[14] Even in Old Georgian -n still occurred sporadically in the markerless intransitive (cf. section 7.1.). Loss was facilitated by the fact that regular phonological rules blocked the occurrence of -n in the surface structures of all inceptives and usually in verb forms with a root ending in n (cf. section 7.2.). The reanalysis of the inceptive formant left the omission of -n from

this category synchronically unmotivated and further eased the loss. By the twelfth century the inversion construction had been added to the list of constructions in which -n did not occur. It subsequently disappeared from the language altogether.

During the loss of n-Agreement, the rule which assigns the nominative case in Series II remained unaffected. The rule that states the distribution of this case in Old Georgian is the same as that for Modern Georgian (cf. Harris (to appear b), Chapter 16). The fact that the assignment of the nominative was unaffected by the disappearance of n-Agreement suggests that these two rules were entirely independent of one another. The fact that the two rules were both of the active type, while other rules in Georgian were of the accusative type, is apparently irrelevant to the history of the two rules.

During the process of the loss of n-Agreement, grammatical relations were likewise entirely unaffected. In Old Georgian, all of the n-triggers were direct objects; those discussed in sections 4. and 6. were, in addition, final subjects. In Modern Georgian exactly the same relations hold, as shown in Harris (to appear b), Chapter 7, 8, and 13. In addition to the n-Agreement rule itself, evidence for the direct-objecthood of these nominals includes suppletion, assignment of the distributive preverb da-, and case marking, in both Old Georgian and Modern Georgian. Evidence for the final subjecthood of the n-triggers discussed in sections 4. and 6. includes the triggering of Subject Person Agreement in both Old Georgian and Modern Georgian, and Object Camouflage in Modern Georgian. Thus, there is no evidence of any reanalysis of grammatical relations connected with the loss of n-Agreement.

Some traditional analyses of Old Georgian make essentially the same statement of the distribution of -n as is made here.

Generally it is stated that plural direct objects trigger -n in Series II, with the additional note that in the categories discussed in section 4. above, plurality is redundantly marked (cf. Imnaišvili (1971), p. 277; Šanize (1976), p. 66; Zorrell (1930), p. 48; and especially Šanize (1920), p. 125, footnote 1). Počxua (1961), on the other hand, suggests that

> originally plurality of the subject in intransitives ...and of the object in transitives...was marked (translated from Počxua (1961), p. 59)

Examples (24) show that plural subjects of active intransitives do not trigger -n; I know of no evidence to suggest that they ever did. To reconstruct n in this category would be unfounded. Thus, the rule was not triggered by all intransitive subjects, only the subjects of inactive intransitives. Therefore, according to (1), n-Agreement was not of the ergative type, but of the active type.

The languages related to Georgian were not attested until relatively recently. The n marker of direct object plurality does not occur in any of the sister languages. N-Agreement cannot therefore be reconstructed for Common Kartvelian.

Conclusion. N-Agreement can be reconstructed with confidence as a rule of the active type shortly before attested Old Georgian. By Old Georgian it had been lost in the markerless intransitive, a non-productive verbal category. Its failure to occur in inceptives is synchronically motivated by regular phonological rules of Old Georgian. N-Agreement disappeared gradually, from one construction at a time.

N-Agreement, like active case marking, was limited to Series II and III.[15] Originally n-Agreement and the nominative case coincided precisely in Series II and III, such that all plural nominative nominals in those Series triggered -n. The distribution of the

nominative case was entirely unaffected by the disappearance of n-Agreement, and it remains an active type rule in Georgian today.

FOOTNOTES

[1]Other examples of active type verb agreement have been discussed in the literature; cf. for example, Chafe (1970), Heath (1977).

[2]Čikobava (1929) shows that the underlying form and the historically earlier form of this suffix was -en. However, since it is reduced to -n in most environments in Old Georgian, it is here referred to in that form.

[3]That is, traditional Kartvelologists also consider the nominals marked in the verb by -n to be direct objects. In particular, they term unaccusative constructions 'passive', and for other constructions discussed here assume an analysis similar to that argued for in Harris (to appear b). Cf. Čikobava (1968), Šaniʒe (1976), and Tschenkéli (1958), for example.

[4]Although nominals are glossed here as active case, in the plural there is syncretism of the plural case markers, such that the nominative case is marked -ni, the vocative -no, and all others -ta. For details, cf. Imnaišvili (1957). Similar syncretism occurs in cases of the first and second person pronouns. Dots separate elements of the gloss that are expressed in a single morpheme. Singular is indicated by the lack of 'PL'. Only subject and object nominals have detailed glosses, since only they are relevant to this discussion.

Modifiers, including possessives, that follow their head nouns bear the case-number suffix of the head. In this way, a possessor may bear two or more case-number suffixes, possibly of different numbers. For example, in (24a) the nominal govel-ta mepe-ta kuegan-isa-ta 'all the kings of the earth' occurs. In this example, kueganisata 'of the earth' has the genitive singular suffix -isa because it is singular, and the active case plural suffix -ta because the head noun is of that case and number.

[5]The 'nominative' in sameupo and mydel has a ∅ marker and is frequently analyzed as a distinct case, the crpelobiti; its functions are almost identical to those of the nominative in -i, -y, -ebi, or -ni (cf. Imnaišvili (1957)).

[6]The nominative case of the third person plural pronoun, like that of nouns, is in -ni: igini.

[7]In (12a) the n-trigger is not a final direct object, but an initial direct object, like those in (21).

[8]The -ni nominative plural bears an obvious similarity to the -n plural marker of the verb. The relationship between them is explored in Čikobava (1929), (1941), Počxua (1961), and elsewhere.

[9]Zorrell (1930), p. 19. This contrasts with the positions of most Georgian linguists (cf. Čikobava (1941), (1954); Imnaišvili (1971); Počxua (1961); and Šanižе (1976)).

[10]Since in certain forms, this particular verb occurs with n in its stem (smin), the form in (21b), an aorist with a third person plural final subject and first person singular final indirect object must be compared with an aorist having a third person singular final subject and first person singular final indirect object. Such a form occurs--mesma 'I heard it'--in Revelations 4: 1. From the minimal contrast between this form and that in (21b), it is clear that the n in the latter is triggered by the plural final subject (initial direct object).

[11]Attempts have been made to relate the third person plural subject markers -en and -an diachronically to the plural direct object marker -(e)n, but no systematic account has been given of the development of the former (cf. Čikobava (1929), (1954); Počxua (1961)). They differ from the suffix discussed in the present paper in (a) being triggered only by the third person, (b) occurring in Series I, as well as II, (c) being assigned by rules of the accusative type rather than the active type, and (d) indicating particular tense-aspect categories, as well as person and number. Whether or not these suffixes are diachronically related, they are synchronically entirely distinct in Old Georgian.

[12]Lomtatižе (1952) and Mačavariani (1959) both conclude that the markerless intransitive is a dynamic intransitive, but they say that its derivation differs from that stated in the present paper. If they were correct, this category would not be an exception to my (25-26). However, I cannot accept their position concerning the synchronic derivation of these, since evidence from case marking, Inversion in Series III, and the relation between these forms and the corresponding transitives shows that the nominative-nominal is the initial direct object (cf. Harris (to appear b), Ch. 13 and 16).

[13]The active intransitive verb svla 'come/go' is irregular in taking a nominative case subject in Series II, but is regular in not having -n mark plurality of that subject. Similarly, the active verb aydges 'they moved to a standing position' is an exception in taking a nominative case subject in Series II, but is regular in not having -n. Active verbs with the root dg 'stand' therefore contrast in -n with inactive verbs having the same root. For example, active verb forms

aydges 'they moved into a standing position' (Rev 11: 11)
šeudges 'they followed him' (Rev 19: 14)

do not contain -n, while inactive (and stative) forms

dganan 'they stood' (Rev 8: 2)
edgnes 'they stood' (Rev 12: 3)

do contain the object plural marker -n.

[14]It is possible that the distinct person markers of the inceptive and markerless intransitive derive from the former use of -n

in these categories. In all other verb sub-classes, the exponent of the optative (future) is -o or -a; when -n is present, this is replaced by -e. In the third person plural subject, for example, optatives end in -on where the direct object is singular, and -nen where the direct object is plural. Just in the inceptive and markerless intransitive, where all (plural) subjects originate as (plural) direct objects, and where -n does not occur, the exponent of the optative is always e, not o or a. The third person plural ends in -en. The occurrence of e instead of o or a could be accounted for by the same rule that makes o or a into e with other verbs, if n occurred in these categories formerly. However, this same e also occurs in the singular of inceptives and markerless intransitives, but not in the singular of verb forms of other types. Therefore, to explain the occurrence of e in this way would assume that it had been extended from the plural to the singular.

[15]Either the case marking rules of Series I (accusative) or those of Series II (active) as stated in Harris (to appear b), Chapter 16, correctly account for case assignment in Series III.

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ON DERIVED INCEPTIVES IN GEORGIAN

Dee Ann Holisky

Linguists pay much lip service to the importance of the relation between form and meaning, but all too few studies offer explicit insight into the nature of this relation. This is not surprising, given the complexities of formal categories on the one side and the poorly-charted territory of semantic ones on the other. The intricate way in which languages connect these two labyrinths often seems to defy systematization and most linguists, understandably, work only one side of the street.

In the recent history of American linguistics there has been an instructive shift of interest from form toward meaning. Prior to 1957 the main focus of linguistic inquiry was on morphology, to the explicit exclusion of semantics.[1] The late fifties and sixties saw the emphasis turn to formal syntax, which, in turn, brought about an increasing awareness of the importance of semantics to an understanding of language structure. A corresponding growth of research in linguistic semantics has followed, and insights gained from such work can ultimately provide us with semantic motivation for those linguistic categories once believed to be arbitrary, purely formal ones. Once we are armed with semantic insight, if we turn back to formal categories, we are better prepared to piece together the system which links them. Following such a course of action, this paper proposes a semantic analysis for one form class in the Georgian language.

In Georgian there are many intransitive verbs which have the morpheme -d- immediately following the root: gaket-d-eba, gamep-d-eba, atir-d-eba, šesrial-d-eba.[2] The -d- is generally considered to be a marker of passive voice, used for those passives

formed from active verbs which have the circumfix a-...-eb (Šanije 1973:412, Vogt 1971:112). Frequently cited examples of such active-passive pairs are given in (1).

(1)(a)	ga-a-ḳet---eb-s	He will do it.
	ga---ḳet-d-eba	It will get done.
(b)	a-a-šen---eb-s	He will build it.
	a---šen-d-eba	It will be built.
(c)	ga-a-mep---eb-s	He will make her king.
	ga---mep-d-eba	She will become king.
(d)	ga-a-çitl---eb-s	She will make him red.
	ga---çitl-d-eba	He will become red.

Some doni passives, as these forms are called, are said to function as the Future Tense (and all tenses based on the Future) for certain other types of Georgian verbs. Typical examples of such pairs are given in (2).

(2)	Activity Verbs	
(a)	ṭiris	He is crying.
	aṭir-d-eba	He will begin to cry.
(b)	ḳanḳalebs	He is trembling.
	aḳanḳal-d-eba	He will begin to tremble.
	Motion Verbs	
(c)	baǰbaǰebs	He lumbers.
	gabaǰbaǰ-d-eba	He will lumber out.
(d)	srialebs	It slithers.
	šesrial-d-eba	It will slither in.
	Stative Verbs	
(e)	civa	It is cold.
	aciv-d-eba	It will become cold.
(f)	cuxs	He is worried.
	šeçux-d-eba	He will become worried.

The main purpose of this paper is to demonstrate that there is a direct relationship between the affix -d- and the semantic category of inceptive (defined below). To account for this relationship a rule of inceptive derivation is assumed for Georgian. This is a word formation rule which forms an inceptive verb from a base word

by means of the affix -d- (details are discussed in II). Following Georgian grammatical tradition, these derived inceptives will be called 'doni forms'.

This paper will focus specifically on the semantics of the inceptive derivation. I will demonstrate that 'arbitrary gaps' in the morphology of doni forms can be ruled out by clear semantic principles: they are derived from contradictory semantic structures. Apparent semantic differences between the types of doni forms (see glosses in (1) and (2)) can be shown to be due to differences in the base words which have undergone this derivation. Whether these doni forms are at the same time syntactically passives, transformed from actives (as in (1)), or paradigmatically filling gaps in the paradigms of other Georgian verbs (as in (2)), are issues which will not be dealt with directly.

In Section I the meaning of inception is taken up. Section II presents first a discussion of the four kinds of base words which undergo inceptive derivation in Georgian and second, an analysis of doni forms which were derived historically but can no longer be considered to be derived synchronically. In III advantages of this analysis of doni forms are detailed, while in IV, problems for future research are pointed out.

I. The Semantics of Inception. Generally speaking, an inceptive expresses the inception, or beginning, of a new state of affairs. It depicts a change of state or an entrance into a new activity. In Georgian and English, as well as in many other languages, an inceptive may be a basic verb (mokvdeba 'he will die', davardeba 'he will fall down'), it may be a morphologically derived verb (gacivdeba 'it will get cold', Eng.harden), or it may be a

syntactically complex expression (daçeras daicqebs 'he will begin to write', lamazi gaxdeba 'he will become beautiful').

Dowty 1972 proposes a semantic structure for the two types of inceptive verbs which is similar to the syntactic structure of these syntactically complex expressions. Specifically, Dowty claims that inceptive verbs have semantic structures in which some proposition (expressing the new state of affairs) is subordinate to a logical predicate, represented as COME ABOUT.[3]

In order to provide an interpretation for COME ABOUT, it is necessary to introduce the notion of a sentence being true in time. Accordingly, a semantic model for such a system consists of 'a set of possible worlds $t_1 \ldots t_n$ with a transitive, symmetrical relation defined on them (the "earlier than" relation)' (Dowty 1972:38). Dowty's truth conditions for COME ABOUT relative to points of time are given in (3).[4]

(3) COME ABOUT (S) is true at t iff S is true at t
and not S is true at t-1
is false at t iff S is false at t
and not S is true at t-1
is undefined otherwise.[5]

Here t represents any time (temporally ordered world-state) and t-1 represents the world-state immediately prior to the first world state. (Dowty 1972:44)

This formal statement is equivalent to claiming that 'one can utter felicitously a sentence like "the soup cooled" when one first observes that the soup is not cool and thereafter that it is; conversely, the meaning of the sentence is that those two states of affairs were true in temporal succession, no more and no less.' (Dowty 1972:43).[6]

The difference between basic inceptive verbs and doni verbs is that COME ABOUT is a part of the basic verb (lexical root) in the

former, but derivative in the latter. Doni verbs are the formal and semantic output of the rule of inceptive derivaiton, which relates the base word to a semantic structure in which it is subordinate to the logical predicate COME ABOUT and to a morphological form in which -d- is affixed to the root.

What unifies all doni verbs is the semantic structure COME ABOUT (S). The interesting differences between the different types of doni verbs lie in the nature of the subordinate sentences, which are explored in II.

II. Derived Inceptives in Georgian. .0 General Remarks. Inceptive derivation with the marker -d- is relatively recent in the history of Georgian, lacking correspondance in the other Kartvelian languages (Mačavariani 1973:107). Although much of the Georgian verbal system is rife with formal irregularity, virtually every doni formation and conjugation is completely regular.[7] At the present state of our knowledge, for example, there is no way to predict generally which preverbs occur with which verbs, but for doni verbs, the correct preverb can be predicted four times out of five (see II). This derivational pattern is also extremely productive: Any new word (with the appropriate meaning) can undergo inceptive derivation.

Of the basic lexical categories in Georgian, a large number of nouns, adjectives, and stative verbs undergo inceptive derivation.[8] These derivations are discussed in II.1. Nonstative verbs are semantically either telic (denoting actions marked for having end points) or atelic (neutral with respect to end points) (see Holisky 1979). Telic verbs never undergo inceptive derivation.[9] Most atelic verbs which are not derived themselves (see Holisky to appear b: Chapter II and III) do derive inceptive counterparts; details of the

derivation will depend on whether the atelic is a verb of motion or not. These are discussed in II.2. In II.3 doni forms which cannot be considered to be derived via the inceptive derivation rule are discussed.

II.1.1 Nouns and adjectives. The overwhelming majority of derived inceptives in Georgian are formed from nouns and adjectives. A representative sample is given in (4).

(4)	Nouns	
	mepe	king
	gamepdeba	she becomes king
	uprosi	boss
	gauprosdeba	she becomes boss
	biurokrati	bureaucrat
	gabiurokratdeba	she becomes a bureaucrat
	mgloviare	mourner
	damgloviardeba	he becomes a mourner
	Adjectives	
	çitelI	red
	gaçitldeba	he turnes red, blushes
	lamazi	beautiful
	galamazdeba	he becomes beautiful
	avad	ill
	daavaddeba	he becomes ill
	orsuli	pregnant
	daorsuldeba	she gets pregnant

As is clear from the glosses, the meaning of these derived inceptives is quite straightforward: gamepdeba 'she becomes king' denotes an event where the state 'she is not king' is replaced by the state 'she is king'. In Georgian perfective tenses, which in general are those with preverbs, most inceptives derived from nouns and adjectives have the preverb ga-, a smaller number have da- or some other preverb, often in some lexically specialized meaning.[10] Moreover, most inceptive verbs formed from nouns and many formed

from adjectives occur only in perfective forms, i.e. the forms without preverbs are not used (*mepdeba 'he is becoming king', *orsuldeba 'she is becoming pregnant').

This gap is readily explained if we consider what such a form would mean relative to our interpretation of COME ABOUT. Taking the form *mepdeba as an example, note that it is a Present Tense form and like all Present Tense forms denotes an ongoing, durative event. It states that the event of becoming king is taking place over a period of time. Let's take the arbitrary period of time 'three days' and see what the truth conditions or the Georgian sentence (5) would be.

(5) *sami dγis ganmavlobaši mepdeba.
He is becoming king for three days.

If we pick any arbitrary moment within the time period, t_i, (5) asserts that one state of affairs ('he is king', call it 'p') is true at t_i and its negative ('he is not king' or -p) is true at t_{i-1}. If we then pick t_{i-1} as an arbitrary moment within the time period, it must be the case at t_{i-1} that p is true and at t_{i-2} that -p is true. But this is a contradiction: Both p and -p are true simultaneously at t_{i-1}. If we compute the truth conditions for all t's in the interval in question, three days, the contradiction will be present at each moment in the interval except the last one. (This discussion is from Dowty 1972:50-51).

This formal description accords with the intuition of native speakers of Georgian. When asked about *mepdeba, they reject the form saying that either one is or is not king; becoming king can't take place over a period of time. By similar reasoning, it could be explained why almost no other doni forms can occur with durative adverbials. The subset of those which can is discussed below.

One subset of doni forms derived from adjectives can occur in inperfective forms and with durative adverbials. Some examples are given in (6).

(6)(a) didxans scivdeba. (Present Tense)
for a long time it is getting cold
It has been getting cold for a long time.

(b) nelnela bneldeboda. (Imperfect Tense)
It was slowly becoming dark.

(c) im dros, rodesac eubneboda, gogo çitldeboda.
While he was talking to her, the girl was blushing.

Note that adjectives like civi 'cold', bneli 'dark', and çiteli 'red' are degree words (Bolinger 1972). They are not absolute properties, but relative ones. Inceptives formed from degree words in Georgian can occur in imperfective forms and with durative adverbials. One test for degree words is that they can be compared. One may say upro civi 'colder', upro çiteli 'more red', but not *upro mepe 'more king, more a king', *upro orsuli 'more pregnant' and so on.

The inceptive derivations for degree words are clearly more complex than those for nondegree words, and I have no formal proposal to make as to their semantic structure. It is instructive to note, however, that in so far as cold denotes a relative property, civdeba 'it is becoming cold' denotes a progression roughly paraphrasable as 'more and more cold'. At each moment in the interval in question what is being asserted is not that x is cold, but that x is more cold relative to the previous moment (Dowty 1972:57-9).

II.1.2 Stative verbs. A fair number of Georgian stative verbs have inceptive derivations. Some are given in (7).

(7)(a)	dums	he is silent
	dadumdeba	he becomes silent
(b)	çuxs	she is worried
	šeçuxdeba	she becomes worried

(7)(c)	civa	it is cold
	acivdeba	it becomes cold
(d)	uqvars	he loves her
	šeuqvardeba	he falls in love with her
(e)	uḳvirs	he is astonished
	gauḳvirdeba	he becomes astonished

Most inceptives derived from statives cannot occur without preverbs. Forms such as *uqvardeba 'he is falling in love with her', *dumdeba 'he is becoming silent' are completely unacceptable. Although this restriction may not seem motivated from the function of the English counterpart, if we consider again the semantics of this derivation in Georgian, it can be more easily understood. In Georgian certain states are classified as absolute, thus, entry into the state of loving can only take place at one point in time, never over an interval of time. It is also not possible to use durational adverbs or expressions such as tandatan 'gradually' or nelnela 'slowly' with such inceptives.

Other states, like some adjectives, are classified in Georgian as relative. One may, for example, be more or less worried; consequently entry into the state of being worried may take place over an interval of time. Such inceptives are acceptable with durational adverbials and in imperfective form:

(8) tandatan çuxdeboda. (Imperfect Tense)
Gradually she was becoming more and more worried.

In the inceptives discussed in this section, the verb which is subordinate to COME ABOUT is a stative one (Holisky 1978). For gamepdeba 'she becomes king' what comes about is the state 'she is king', for gaçitldeba, the state 'he is red' and for šeuqvardeba, the state 'he loves her'. In the next section the verb is not stative, but atelic. What 'comes about' for these inceptives is not a state, but an atelic activity.

II.2 Atelic Verbs. Atelic verbs denote activities which are neutral with respect to having end points (see Holisky 1979 for detail and justification). Many atelics have inceptive derivations, but in order to specify which atelic verbs can undergo this derivation, it is necessary to make several distinctions within the class of atelics. First, it is necessary to distinguish atelics which are derived from those which are basic. This division is discussed and defended in Holisky to appear b (Chapters II and III) and will be assumed here. Only basic atelic verbs have corresponding inceptives. Within the group of basic atelics, it is also necessary to distinguish those which denote motion from one place to another from those which do not. Inceptives derived from verbs of motion are discussed in II.2.2; inceptives from other basic atelics are covered in II.2.1.

II.2.1 Basic (non-motional) Atelic Verbs. Virtually every basic atelic verb can have a derived inceptive. Some examples for non-motional verbs are given in (9).

(9)(a)	ṭiris	he cries
	aṭirdeba	he begins to cry
(b)	čivis	he complains
	ačivldeba	he begins to complain
(c)	gizgizebs	it flickers (e.g. fire)
	agizgizdeba	it begins to flicker
(d)	laklakebs	he blabbers
	alaklakdeba	he begins to blabber
(e)	ḳanḳalebs	he trembles
	aḳanḳaldeba	he begins to tremble
(f)	duys	it boils
	aduydeba	it begins to boil

These inceptives denote entrance into an activity. The verb aṭirdeba, for example, glossed 'he begins to cry', is true at a time t_1 if at t_1 it is true that he is crying and at t_{1-1} it is not true he is crying. In terms of the semantic structure of the sentence,

this transition is viewed as instantaneous.

Almost all of these derived inceptives have the preverb a- in perfective tenses,[11] and never appear in imperfective ones.[12] Imperfective forms *tirdeba, *gizgizdeba, and so on, are absolutely not used. This morphological gap accords with the semantic structure discussed just above (see also p.7). Because the transition is instantaneous, forms used to denote it must be grammatically instantaneous; durative forms (imperfective ones) are not allowed. (See Holisky to appear a for further discussion of the distinction instantaneous--durative in Georgian.)

II.2.2 Atelic Verbs of Motion. A fair number of basic atelic verbs denote motion from one place to another. Many of these have derived inceptive counterparts, some of which are given in (10).

(10)(a)	baǰbaǰebs	he lumbers (e.g. bear)
	gabaǰbaǰdeba	he lumbers out
(b)	goravs	it rolls
	ik migordeba	it rolls there (to there)
(c)	srialebs	it slithers (e.g. snake)
	šesrialdeba	it slithers in
(d)	cocavs	she crawls (e.g. baby)
	acocdeba	she crawls up
(e)	cunculebs	he trips along (with light,
	šecunculdeba	he trips in little steps)

These inceptives have a semantic structure which is far more complex than the structures considered thus far. The inceptive gabaǰbaǰdeba 'he lumbers out', for example, means roughly 'he comes to be in a new location which is spacially "out" relative to his former location and this new location is reached by lumbering'. I have no proposal for how these parts of the meaning are put together; an adequate analysis of the structure of the motion atelics themselves would shed light on the more complex structure of the

derived inceptives.[13]

Most of the inceptives derived from verbs of motion allow a very wide number of preverbs, which retain their directional meaning.

(11)(a) xeze asrialdeba.
It slithers up the tree.

(b) gasrialdeba.
It slithers out.

(c) balaxši šesrialdeba.
It slithers into the grass.

(d) otaxši šemosrialdeba.
It slithers into the room (speaker is in the room).

Moreover, these inceptives, like most others considered here, occur only in perfective forms, i.e. with preverbs. The forms *baǰbaǰdeba, *cocdeba, *cunculdeba, and so on are all rejected by informants. Once again, this gap is consistent with a semantic structure in which the new state (a locational one) is viewed as coming about instantaneously, as Dowty's interpretation of COME ABOUT specifies. The inceptive itself picks out the moment in which the new state is attained, regardless of how long a time is spent in trying to attain it. The inceptive can almost never be used to refer to the time leading up to the change.[14]

This analysis of the semantics of the doni forms provides an explanation for why some verbs of motion do not have derived inceptives at all, or allow only a restricted inventory of preverbs. The verb agordeba, for example, would mean 'come to be up by rolling' but informants reject it, saying it is not possible to reach anywhere by rolling upwards.

The verb xetialobs 'he wanders around aimlessly' according to most speakers does not have a derived inceptive. We would expect

it to be semantically odd to choose a lexical root which emphasizes the goal-less nature of the motion, but a grammatical form which requires specification of a goal. Some speakers allow this to be used in inceptive form with only the preverb ça- 'away', which results in less semantic conflict: çaxetialdeba 'he wanders away'.

II.3 Non-derived Doni Forms. In addition to the large, open-ended number of Georgian verbs with doni form which are derived from other words, there is a small and non-productive group of doni forms which are not derived. A near-exhaustive list is given in (12).

(12)(a)	gagulisdeba	he becomes angry
(b)	gatavdeba	it will end
(c)	šegrovdeba	it collects (garbage)
(d)	gaḳetdeba	it gets done
(e)	gamovlindeba	it appears
(f)	dalagdeba	it gets put in order (house)
(g)	damtavrdeba	it is completed
(h)	darcmundeba	he is convinced
(i)	gaṭardeba	it is collected, taken in (e.g. papers at registration)
(j)	çakezdeba	he gets incited (to fight)
(k)	daqovndeba	he stops (a little)
(m)	ašendeba	it gets built
(n)	gašveldebian	they are separated (when fighting)
(o)	gačerdeba	it stops
(p)	gačaydeba	it begins to burn (fire)
(q)	sečvendeba	he is cursed
(r)	gaçendeba	it gallops (horse)

These verbs may have been derived historically, but synchronically, they must be considered primary verbs. There are no corresponding nouns, adjectives, or verbs from which to derive these verbs either formally or semantically.[15]

It should be noted that although these non-derived doni forms are very common verbs, they are by no means typical members of the doni group. They are frequently cited as main examples of doni verbs, however, which unfortunately obscures the tremendous semantic regularity of this open-ended derivational process (Čikobava 1950: 59-60, 68; Šanije 1973:289; Tschenkeli 1958:281-2).

In addition to the seventeen common verbs listed in (12), many other doni forms have undergone partial or complete semantic shifts; these also are considered non-derived. Some examples are given in (13), where the meaning expected in terms of the inceptive derivation is added in parentheses.

(13)(a)	tvini	brains
	gamoṭvindeba	he becomes stupid (from fatigue)
		(≠ it becomes a brain)
(b)	ṭqavi	skin, hide
	gaṭqavdeba	it is skinned
		(≠ it becomes skin)
(c)	saxli	house
	dasaxldeba	he becomes settled
		(≠ it becomes a house)
(d)	meore	second
	gameordeba	it is repeated
		(≠ it becomes second)
(e)	laka	fleck, spot (of dirt)
	dalakavdeba	it becomes dirty, spotty
		(≠ it becomes a spot)
(f)	imedi	hope
	daimeddeba	he will have hope
		(≠ he will become hope)
(g)	grjeli	long
	gagrjeldeba	it is extended (in time)
		(≠ it becomes long)

These inceptives are verbs which have come into being via the word formation rule of inceptive derivation, but they have undergone lexical semantic shifts. The result is that the meaning of the inceptive has ceased to be transparent, and must be learned separately for each of these and similar verbs.[16]

III. Advantages of this Analysis. In Section I I presented a particular analysis of the semantics of inceptive verbs and in II, proposed that this analysis could account for the meanings of most Georgian doni verb forms. In particular, I argued that the morpheme -d- is a marker of the word formation rule of inceptive derivation;

a direct reflex, as it were, of the logical predicate COME ABOUT. The core of these claims is a well-known fact about Georgian. Nearly every linguist who has discussed doni verbs has pointed out that many are denominal and many have inceptive meaning (Čikobava, Deeters, Maçavariani, Šanije, Tschenkeli, Vogt). To my knowledge, however, no one has claimed that all regular doni forms are derived, nor has anyone discussed details of the different types of doni verbs.

The major advantage of the analysis of doni forms proposed here is that, if correct, it provides a uniform account of the entire class. Given the explicit statement in II of the relationship between the derivational morpheme -d- and the lexical roots to which it may attach, we can predict in all regular cases what the meaning of the derived verb will be. An analysis which derives all doni forms from the same source, shows this to be semantically consistent, and predicts the meanings of new doni forms, must be considered to be superior to one which accounts for the various doni forms in various ways, and has no way to predict the meanings of new forms.

Moreover, as detailed in Section II, this analysis provides an account of a number of hitherto unexplained morphological gaps. The fact that doni forms rarely occur without preverbs has been noted (Maçavariani 1974:118, Čikobava 1950:61), but not explained. No other analysis has attempted to specify which doni forms do occur in imperfective forms, much less why.

Many Georgian verbs never have doni derivations. Although it remains to be shown how this can be explicitly ruled out, at least we have been able to characterize semantically for the first time the verb types which do not have inceptive derivations. As mentioned in II, verbs which are semantically telic, marked for

having end points, do not have corresponding doni inceptives.

On the level of individual words, the doni derivation corresponding to a particular word will provide evidence by which to classify the lexical root of that word in Georgian. Because nominal roots in Georgian have derivational patterns different from verbal roots and vice versa, because telic verbs have possibilities of conjugation and derivation not shared by atelics, because verbs of motion allow preverbs in ways not allowed by other verbs, and so on, each root in Georgian must be lexically marked for certain semantic categories (this claim was made also in Holisky to appear a). From one form alone it is not always possible to know the lexical class to which it belongs, but the form and meaning of the corresponding doni provides some of the clearest evidence.

For example, the word limp in English can easily be used as a verb of motion (he limped into the room, he limped out, etc.). A Georgian word which at first glance seems like a counterpart (ḳoč̌lobs 'he limps') does not behave like a verb of motion in terms of the doni derivation. Forms like šeḳoč̌ldeba 'he will limp in', gaḳoč̌ldeba 'he will limp out' are completely unacceptable. The correct doni derivation is gaḳoč̌ideba 'he will become lame'. Closer inspection reveals that there are many other properties of verbs of motion not shared by ḳoč̌lobs. This verb is not a basic verb, but a derived one; the root is nominal: ḳoč̌li 'lame, lame person', from which is derived the verb ḳoč̌lobs, best glossed as 'do as a lame person, limp'. In this case, and others, knowing the doni form leads to correct classification and better understanding of the meaning of the lexical root.

IV. Additional Notes on Doni Forms. In addition to specific problems of this analysis pointed out in the body of this paper, there remain naturally many other gaps in our understanding of the inceptive derivation in Georgian. Listed in this final section are a few of the most conspicuous, which are offered in the spirit of topics for further research.

1. Most notably lacking from this proposal is a syntactic derivation from the underlying semantic structure COME ABOUT (S) to the surface form of the derived verb. A most reasonable proposal would be to have a two clause underlying structure, with COME ABOUT as the main predicate with a sentential object and the relevant new state or activity ('he is king', 'he is crying' or whatever) in the position of sentential object. A clause union rule would apply, converting this into a one clause structure. As there is no subject of the main clause, a rule called unaccusative would then apply, which converts the direct object (in this case 'he') into the subject. (Details of these syntactic rules of Georgian are given in Harris to appear.) Because I have no support for the details of this proposal, it is mentioned as a topic for research.

2. Related to the question of the syntactic structure of derived inceptives is the fact that they are always intransitive. In Georgian one may say čadraki itamaša 'he played chess' with 'chess' a direct object, and atamašda 'he began to play', but never *čadraki atamašda or *čadraks (Dat.) atamašda 'he began to play chess'. Formally, the verbal category to which doni's belong and the category of direct object are mutually exclusive, but I know of no semantic or syntactic structural reason this should be so.

3. Next to the large number of basic atelic verbs in Georgian

which have derived inceptives (II.2), there are some basic atelics which do not. Is there any way to predict which basic verbs will undergo inceptive derivation?

4. In this presentation I have ignored the problems of the form of the lexical root, which may undergo certain changes in the derivation from a noun or adjective. If the noun or adjective is a syncopating one, the form of the root used in the derived inceptive is usually syncopated, as shown in (14).

(14)(a)	martal-i	true, just, innocent
	martl-is	Gen. (syncopated form)
(b)	gamartldeba	it is justified, he is found innocent (syncopated form)

This is not always the case, however, as the example in (15) indicates.

(15)(a)	mtver-i	dust
	mtvr-is	Gen. (syncopated form)
(b)	amtverdeba	it becomes dusty (non-syncopated form)

A similar discrepancy exists regarding the presence or absence of a root final -a or -e. When the vowel is truncated in the nominal, it is usually also truncated in the derived inceptive, but not always. (For details see Uturgaije 1976; these examples are from that article.)

5. It is worth noting that some basic atelic verbs in Georgian have two causative forms, one with the preverb a- and another with no preverb. For example, next to the atelic tiris 'he cries', there are the two causatives aatirebs and atirebs (both Future Tense forms). The second is the regular causative of the atelic, glossed 'she makes him cry', while the former with the preverb a- is a causative of the inceptive (itself derived from the basic atelic) atirdeba. It should be glossed 'she makes him begin to cry'.

6. Should the derived inceptives which do not occur in imperfective form be translated into languages like English with the present or the future? That is, for a form like aṭirdeba, is it best glossed: 'he begins to cry' or 'he will begin to cry'? In this paper I have chosen the former, mostly for reasons of brevity.

7. It is not clear whether the subject of doni forms can be an agent or not. (The meaning of the term 'agent' and agentivity tests for Georgian are presented in Holisky 1978.) There is some evidence that these are not agentive, as illustrated by the following sentences (from Harris to appear: 431-2).

(16)(a) vano aγiγinda. (Aorist; doni form)
Vano began to croon.

(b) čaidani aγiγinda.(Aorist; doni form)
The teakettle began to croon (i.e. whistle).

(17)(a) vanom čaiγiγina. (Aorist; basic atelic)
Vano began to croon.

(b) *čaidanma } čaiγiγina. (Aorist; basic atelic)
čaidani }
The teakettle began to croon.

The doni form in (16) expresses that the action of crooning was involuntary and noncontrollable, indicating that the subject is not an agent. Either an animate (Vano) or inanimate object (teakettle) may be the subject of this verb. This is in contrast to the verbs of (17) which denote controlled, voluntary activity. Here the subject is an agent. The animate (Vano) in (17a) is acceptable; the inanimate (teakettle) in (17b) is not.

There is other evidence, however, that doni forms may be agentive. Like agentive verbs they may be impered:

(18)(a) galamazdi! Get beautiful!
(b) aṭirdi! Begin to cry!
(c) imis kveš šecocdi!
Crawl under that! (e.g. an order to fetch something under a chair)

(18)(d) roca vano otaxši šemova, uceb alaparakdit!
When Vano comes into the room, suddenly begin talking!

Also like agentive verbs, some doni forms co-occur with adverbs like intentionally, deliberately.

(19) bavšvi ganzrax acocda ǵibebze.
The child intentionally crawled up the stairs.

FOOTNOTES

[1]I am speaking here of general trends, of course, and not of all linguistic work of the time, while leaving aside other areas of linguistics such as phonetics, phonology, historical linguistics, and so on, which were studied then as now.

[2]In transliteration of the Georgian alphabet a dot over or under a letter indicates a member of the glottal series of consonants, and a háček, a member of the alveopalatal series. Unless otherwise indicated, forms cited will be in the Future Tense, with a third person singular subject. As there is no grammatical gender in Georgian this third singular subject may be glossed in English with 'he', 'she', or 'it'. The Georgian data in this paper is from field work in Tbilisi, Georgia, 1974-75.

[3]It should be noted that Dowty uses 'logical structure' for what I call 'semantic structure'. In the semantic framework Dowty is using, a model-theoretic one, each logical predicate is given a semantic interpretation. An interpretation can be viewed as an explicit statement of the conditions under which a proposition containing the predicate will be true or false. For example, see Dowty's interpretation for COME ABOUT given below. Following general tradition, the logical predicate is capatalized. Clear expositions of model-theoretic semantics for the lay reader can be found in Dowty (1972: Chapter I) and Cochrane (9-12) and the bibliographies therein.

[4]In later research, reported in Dowty 1977, this analysis is modified to assign truth values to all sentences relative to intervals rather than moments of time. The truth conditions of COME ABOUT are revised accordingly to allow sentences with COME ABOUT to be interpreted over intervals. Cochrane proposes that we need to distinguish between two types of verbs which denote a change in state: "One denoting an instantaneous change in state and one denoting a gradual change which takes place over an interval" (145). Because the behavior of Georgian doni forms confirms the need to distinguish an instantaneous change of state and because Dowty's later analysis for the semantics of intervals of time is more complex and motivated by considerations not directly relevant to our discussion, I present the clearer discussion of the semantics of COME ABOUT from Dowty's earlier work (Dowty 1972). The reader is referred to Cochrane 1977:148-9 for a proposal to distinguish instantaneous verbs from durative ones.

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[5]This third condition is necessary to account for the fact that not S is not an assertion, but a presupposition of inceptive sentneces. In those cases where not S is not true at t-1, it is not the case that COME ABOUT (S) is false, but that it is without a truth value (Dowty 1972:44-48).

[6]Note that a formal statement of the semantics is important in so far as it provides us with an account of inception which is relatively independent of specific English words (such as become or begin) and their limitations. It enables us to see the similarity in all Georgian doni forms, otherwise obscured by differences in translation into English. It was in fact precisely this statement of the meaning of inception from Dowty 1972 which led me to recognize the manifestation of this category in the various subtypes of doni forms.

[7]A frequently-cited exception to this generalization is the verb gatqdeba 'it will break'. The -d- of this verb is unlike the -d- of the verbs formed via the doni derivation in that the former but not the latter show up in the masdar (tqdoma 'breaking'), and the perfect (gamtqdara 'apparently it broke'). The tq does not occur alone in any form with related meaning without the -d-. I would consider the -d- in this case to be a part of the verb root and not a marker of inceptive derivation. The verb tqdoma exhibits other properties of basic verbs as well.

[8]Rarely, there is an inceptive derivation for an adverb: mzad 'ready' -- momzaddeba 'it gets prepared (e.g. food)'.

[9]Because telic verbs are marked for having end points, the lack of inceptive derivations, whose function is to pick out the beginning point, is not surprising.

[10]On perfective versus imperfective in Georgian and its relation to the use of preverbs see Mačavariani 1974, Šanije 1973:262-3, Vogt 1971:180-7.

[11] Occasionally a different preverb or an additional preverb is possible, often with specialized meaning. Although additional preverbs are listed from time to time as possibilities in Tschenkeli 1960-74, they are frequently rejected by informants in favor of (just) the preverb a-.

[12]The only exception to this statement I am aware of is the verb aduydeba 'it begins to boil'. This verb is regularly used in imperfective form to denote the condition of water from the time it is put on the stove to heat until the moment when it begins to bubble on the surface, or as one informant put it:

(i) tu ǰer ǩidev çqali ar duys, duydeba hkvia.
If the water isn't boiling yet, that is called 'duydeba'.

This verb must be lexically marked to allow for interpretation relative to an interval of time and not for just an instant (see footnote 4).

[13]It should be noted that these verbs are considered basic (non-derived) because I have no derivation to propose for them. This does not preclude finding a plausable derivation at some future time, which surely would provide evidence as to the structure of the derived inceptives as well.

[14]There is a small number of inceptives derived from verbs of motion which occur regularly in imperfective form. I am aware of only the following (Present Tense): brundeba 'it turns', gordeba 'it rolls', srialdeba 'it slithers, slips', ṭrialdeba 'it turns', prindeba 'it flies', and curdeba 'it slips, slides'. There is a great deal of speaker variation on the use and meaning of these imperfective inceptives. Theoretically, they should denote the motion leading up to a change of state, and be semantically opposed to the corresponding atelic verbs of motion, which I would expect to be neutral with regard to whether the motion is leading to some change in state or not. The only consistent difference in usage between the two which I found, however, is that the latter but not the former can refer to a general property, as in (ii) and (iii).

(ii) saerto gveli { srialebs. / *srialdeba. }
In general the snake slithers.

(iii) saerto dedamiça { brunavs. / *brundeba. }
In general the earth rotates.

[15]I do not consider the corresponding causative forms (e.g. gaatavebs 'he ends it' to be a possible derivational source for these doni forms. In some cases there are nouns in synchronically unrelated meanings. For example, next to gatavdeba 'it will end', there is the noun tavi 'head'. In other cases, the noun may once have been used in Georgian, but is no longer. (See Uturgaije 1976: 192 for an etymology of the nominal from which ašendeba 'it gets built' was derived.)

[16]See Dowty 1978 for a model of the lexicon and the role of word formation rules and lexical semantic shift assumed here. Note that I do not mean to imply that the verbs of (12) are different from those of (13). They are merely different extremes of the same process of lexical semantic shift.

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THE CAUSATIVE: DAGHESTANIAN VARIATIONS ON A THEME.*

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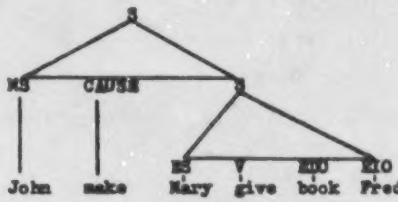
Following Comrie (1975. 2) we may say: 'If the non-causative verb has a valency n (takes n arguments), then its causative equivalent will normally take n + 1 arguments, since in addition to the arguments of the non-causative verb, the causative verb also includes reference to the Causer of the action'. Let us follow Comrie (ibid.) in assuming 'that the underlying structure of a causative construction contains a matrix sentence and an embedded sentence, so that the English sentence below would be represented as indicated:

(1) John made Mary give the book to Fred

(2)



, where MS = matrix subject; ES = embedded subject; EDO = embedded direct object; EIO = embedded indirect object. The V of the lower (embedded) S may thus be styled E(mbedded) V(erb).

Causatives may be formed from non-causatives by one of three processes: a) lexically (e.g. English die vs. kill — no further mention will be made of this type below; b) analytically (e.g. German lassen + infinitive of EV), and in such cases the verb representing the element CAUSE of the matrix sentence will be styled M(atrix) V(erb); c) synthetically/morphologically (e.g. Turkish öl- dü (die 3rd. pers. PAST) = 'he died' vs. öl- dür- dü (die cause 3rd. pers. PAST)

= 'he killed him'), where the verbal affix which produces the causative will be called the C(ausative) F ormant). In some cases it is difficult to decide whether we have an analytic or synthetic causative (and thus a MV or CF) in a given language. One of the aims of this paper is to examine the variety in the formation of causatives manifested in a selection of the languages of Daghestan (N.E. Caucasus), where, semantically, a causative as often implies help, entreaty or permission as outright compulsion.

At the same time we shall be concerned with another essential component of the change from non-causative to causative — namely the increase in valency of the non-causative verb. Essentially we shall be interested to observe the cases assigned to the various arguments of the resulting causatives. The claim has been made (Comrie: 1975. 8) that the ES will always be shifted to some syntactic position other than that of subject. According to the "paradigm case" (ibid.) this shifting will not be to an arbitrarily selected new syntactic role. Given the existence of the so-called Case Hierarchy (see Keenan and Comrie: 1977) which is:-

Subject > Direct Object > Indirect Object > Oblique [> Genitive > Object of Comparison][1], the ES will be demoted to the first available slot on the Hierarchy, where the heading Oblique comprises such categories as Instrumental, Benefactive, Locative, Comitative etc... Should the ES be demoted as far as Oblique, no prediction is made as to which sub-heading of Oblique will be chosen in any given language to represent it[2]. Whilst Comrie came across cases of Extended Demotion, by which is meant that the ES is shifted beyond the next available slot on the Hierarchy, as well as cases of Syntactic Doubling, whereby the ES is indistinguishable from an already existing direct or indirect object, he was unable to trace any instance where the ES is not demoted at all, which would amount to a language tolerating syntactic doubling on subject-position, i.e. there would be two subjects present in the one sentence.

Having established the sphere of interest for the present study, it remains for us to to explain the choice of languages which provide the material

for this investigation. The Daghestan family contains some 29 languages (see the list in Klimov: 1965. 49) which fall into four seemingly genetically related language-groups: a) Avar-Andi-Dido, b) Lak-Dargwa, c) Lezgian d) Nax (Vejnax)[3], although at the same time these languages provide a satisfying diversity in the matter of causative-formation. The remaining two families of Ibero-Caucasian (i.e. N.W. and S. Caucasian) have been left out for three reasons: the survey would become unbalanced and over-long by the inclusion of two language-families whose genetic affiliation either to each other or to the Daghestan family cannot be conclusively demonstrated[4]; the phenomenon here under scrutiny has been adequately described for these two families in easily accessible works[5], whereas the information on the Daghestan languages is available only in Russian or Georgian linguistics' works; apart from the occasional exception amongst the N.W.C. group[6], the two remaining language-families form their causatives by means of a CF, — they, therefore, show us nothing which cannot be found in Daghestan. In the absence of native speakers in Cambridge at the time of writing, all the following data have been extracted from the standard grammars of the languages concerned — with the exception of certain material gathered by the author in the Caucasus.

Data:-

If the N.W. and S. Caucasian languages present nothing which cannot be found in Daghestan, and if the causative is predominantly formed in these groups by means of a CF, then we may conveniently start our survey of Daghestan with a language which also conforms to this model — Andi (see Cercvaje: 1965. 224-7 and 266-9). In this language, as in most of the others we shall be examining, each noun belongs to a grammatical class (human male, human female etc... — the number of classes existing in Andi differing according to the dialect (ibid: 92-109)). The verb shows no personal conjugation but, if it is one of those which may contain a class-marker, it will

manifest the class-marker appropriate to the noun standing in the nominative case. Andi is an ergative language, so that the subject of an intransitive verb and the direct object of a transitive verb are placed in the nominative, whilst the subject of a transitive stands in the ergative (which also functions as the instrumental). Verbs of feeling and perception (e.g. see, know, love) require a different construction: the logical subject stands in the 'affective' case, whilst the logical direct object is nominative. The dative case represents indirect objects. Examples (ibid. 213-4):-

1) Intransitive:

woni w- ulon
brother (nom.) went
= 'The brother went'.

2) Transitive

imudi woni w- ota
father (erg.) brother (nom.) left
= 'Father left (his) brother'.

3) Affective

imuwo woni w- uson
father (affective) brother (nom.) found
= 'Father found (his) brother'.

The CF in Andi is -ol for the present group of tenses, -ol for the past[8]. This CF is placed directly after the root and thus precedes any tense suffix. If the EV is intransitive, the ES will become direct object of the resulting causative, and will thus remain in the nominative; the MS will, of course, be ergative, e.g.:-

4) a) moǰ'i girdi
child (nom.) lay down
= 'The child lay down'.

⇒ b) iludi moǰ'i gird-ol- i
mother (erg.) child (nom.) made-lie-down
= 'The mother put the child to bed'.

Should the EV be transitive, then the ES appears in the affective case, (the being the only other function of the affective case apart from the one mentioned above), the EDO remaining in the nominative and the MS once again be

ergative, e.g.-

5) a) imudi xur b- etl'i
father (erg.) field (nom.) ploughed
= 'Father ploughed the field'.

→ b) imudi wosubo xur b- etl'- ob- i
son (affective) made - plough
= 'The father got his son to plough the field'.

A further interesting feature of Andi is the following. Like all the other N.E. (and N.W.) Caucasian languages, with the possible exception of the Nax group (cf. Jakovlev: 1940. 89 ff.), Andi has no specifically passive morphology. Any non-derived (i.e. non-causative) verb that may be used transitively may also be used intransitively (passively) simply as a result of the omission of the ergative argument, e.g.

6) a) hedesdi hinc'u arxon
he (erg.) door (nom.) opened
= 'He opened the door'.

→ b) hinc'u arxon
= 'The door opened'.

However, Cercvaje (p. 226) alludes to the interesting fact that 'non-derived transitive verbs sometimes show a tendency to become transitive and only transitive verbs (of the active voice) by the same means by which a transitive [sc. causative — B.G.H.] verb is formed from an intransitive' — in other words, we may add the CF to our example (6a) to produce

6) c) hedesdi hinc'u arxon-li

and yet the meaning will remain 'he opened the door'; by adding an argument in the affective case, the CF will be re-endowed with its true, causative-forming signification[9].

The first striking feature when we turn to to Avar is its different causative-forming strategy. First let it be noted that Avar, like Andi, has a system of noun-classes. If the verb may take a class-marker, it shows the marker appropriate to the noun standing in the nominative case. There are three classes marked by 'w' for male persons, 'y' for female persons, and 'b'

for everything else; the marker for all plural nouns is 'r' (→ 'l' in word-final position) — some commentators regard this as a fourth, specifically plural, class-marker. Avar is an ergative language (the ergative case also functioning as the instrumental) and, again like Andi, has a special construction for verbs of feeling/perception. However, regarding this latter construction, Avar differs significantly from Andi. The two verbs of feeling bo-tɬ'ise 'to love/want' and b-atɬ'ine 'to like' take their subject in the dative case (which is also the regular case for expressing indirect objects) e.g.:- (after Bokarev: 1949. 34, and Čikobava and Cercvaje: 1962. 147 respectively)

7) inguye žindirgo ɬimer b-otɬ'ula
father (dat.) his own child (nom.) love
= 'A father loves his own child'.

8) Šamili-y-e yaq y-atɬ'ana
Šamil (dat.) sister (nom.) like
= 'Samil likes (his) sister'.

All verbs of perception, on the other hand, require their subjects in the locative I[10], e.g. (Bokarev: 1949. 37)

9) inguda žindirgo ɬimal r- ix'ana
father (loc. I) his own children (nom.) see (past)
= 'The father saw his own children'.

The causative is formed by means of the MV ha-b-ise[11] 'to do, make' preceded by the infinitive of the EV. The two verbal elements may combine to produce a compound causative verb, in which case the infinitive of the EV loses its final -e and the MV loses its initial h-, e.g. qwaza-b-ise 'to make write'; alternatively the two elements may remain as separate words — thus: qwaze ha-b-ise (cf. Čikobava and Cercvaje: 1962. 340). In this latter case the other words in the sentence may intervene between the EV and MV (cf. Bokarev: 1949. 59). If the EV is intransitive, the ES will remain in the nominative, being direct object of the resulting causative, and the MS will naturally be ergative, e.g.-

10) a) was w- egule- w w-ugo[12]
boy (nom.) lie down (participle) (copula)
= 'The boy is lying down'.

→ b) ebelał was w-egiza- w-ulc-w w-ugo
mother (erg.) lie down cause (participle) (copula)
= '(His) mother is making the boy lie down'.

If the SV is transitive, the ES stands in the locative I, e.g.- (after Čikobava/Cercvaje: 1962. 340)

11) a) doš čuyal r-osana
he (erg.) horses (nom.) buy (past)
= 'He bought the horses'.

→ b) doš d'da čuyal (r-osiza-r-una
(r-osize ha-r-una
me (loc. I) buy cause (past)
= 'He made me buy the horses'

Since, as noted above, verbal roots in Avar may be used transitively and intransitively (depending on the syntax of the sentence), it may be expected that what is formally the causative of a given root will have two possible meanings — a) if construed with an ergative and a nominative argument, it will be the simple transitive derivative of the root in its intransitive sense; b) should a locative I argument be added to those in the ergative and nominative, then we shall have the causative of the root in its transitive guise. Just such an equivalence with Andi is confirmed by Bokarev (1949. 63-4). By adding a locative I argument to (10b) we shall produce the double causative of the basic intransitive verb — thus:-

12) ebelał ličer inguda b-egiza- b- una
mother (erg.) child (nom.) father (loc. I) lie down make (past)
= 'The mother made the father make the child lie down'.

This raises the question of the formation of double causatives from a basic verb in its transitive sense. Given sentence (13) —

13) čanaqanaš rit'uč' č'wala
hunter (erg.) deer kill (future)

= 'The hunter will kill the deer', the sentence 'his friend will make the brother of the hunter make the hunter kill the deer' was translated as follows:-

14) dogul hudulas ǯanaqanagul wac
his friend (erg.) hunter's (gen.) brother (nom.)
t'amle-w w-ugo, ǯanaqan
allow (partic.) (copula) hunter (nom.)
rit'uǯ' ǯ'wasa-b-ise t'amise.
deer (nom.) kill (cause) allow

This introduces us to an entirely new (periphrastic) construction involving the NV t'amise 'to allow'. Notice that, with this verb, the NV stands in the nominative case (i.e. it becomes NDO), whilst the NV simply stands in the infinitive. The most unexpected feature of the above-sentence is that, instead of the infinitive ǯ'wase 'to kill', we have its (morphological) causative ǯ'wasa-b-ise, although there is no danger of the form being interpreted as causative in any semantic sense; for the form to be interpreted as a true causative, there would have to be a noun present in the locative I. In the absence of such a locative I argument, the function of the element 'a-b-ise' is interpreted as merely stressing the transitivity of the verbal root with which it is combined. But why was ǯ'wasa-b-ise here preferred to the simple ǯ'wase? Perhaps it is not totally irrelevant to the issue in hand to observe that neither ǯ'wase nor t'amise contain class-markers in their infinitives (the forms used in the relevant portion of (14)). Therefore, it <u>may</u> not be immediately clear which of the two nominative-nouns is to be taken with ǯ'wase and which with t'amise. The addition of ha-b-ise, with its slot for a class-marker, certainly helps to resolve this uncertainty. However, a definitive answer to this question cannot be advanced on the basis of the data presently available. Regarding the use of t'amise to produce causatives in Avar, it may be of interest to note that of the seven examples translated by my informant only the two based on <u>intransitive</u> NV's were <u>not</u> formed with the aid of t'amise[13], and that of the remaining five only one did not have ha-b-ise attached to the subordinate infinitive, and in this sentence there was no possibility of not being able to distinguish the direct object of the NV from that of the NV[14].

Regarding the use of t'amize as a tool in Avar's causative-forming strategy, it is interesting to observe that, in an article dealing with causative-formation in Avaro-Andi languages which appeared after the first drought of the present paper was prepared, Magomedbetkova (1978), herself a native speaker of Avar, does not even allude to the possibility of causatives being produced in Avar with the help of this particular verb.

If a causative is formed from a verb of perception, then the ES will naturally remain in the locative I, e.g.:- (after Bokarev: 1949. 68)

15) dida mux b-ix'isa-b- e
me (loc. I) road (nom.) see cause
= 'Shew me the road'.

Even where t'amize is employed to produce such causatives, the ES will still be locative I (cf. example (d) in Footnote (14)).

Unfortunately, it is impossible to say in what case the ES would stand with the two verbs of feeling, which take dative subjects, for, as Bokarev notes (1949. 67) the causatives of these verbs are not found[15].

Finally, in connexion with the Avar causative, note (in example (11b) for instance) that the class-marker of the MV ha-b-ize <u>always</u> agrees with the MDO, regardless of whether the MV stands as an independent word or is compounded with the EV. The possibility of ha-b-ize retaining its independent status (and of even being separated from the EV) suggests that the Avar causative is synthetic and that ha-b-ize is correctly regarded as a MV. On the other hand, the possibility of compounding the EV and ha-b-ize, together with the grammatical requirement that the class-marker of ha-b-ize agree with the EDO alone suggests that the Avar causative may be regarded as analytic, from which it would follow that ha-b-ize be treated as a CF. As regards the choice of the locative I to represent the ES of transitive EV's, Bokarev (1949. 63) proposes to account for this in terms of an analogy with the following use of the locative I in conjunction with ha-b-ize:-

16) hanada ši- b diga ha-b- ile-b
meat (loc. I) what (nom.) I (erg.) do (future)
= 'What shall I do with the meat?'

This surely presupposes a fully independent grammatical status for the verb ha-b-ize in this particular construction. Whatever may have been the ultimate origin of the causative-forming strategy in Avar, such an explanation is untenable from a synchronic viewpoint, for, as we have shown, ha-b-ize has completely lost its independent status when it is used as part of the causative-forming strategy in the modern language. Indeed, there are also external grounds for doubting the validity of this proposition, for, as we shall presently see, Avar is not unique amongst the languages of Daghestan in selecting a locative to represent transitive ES's, although the other languages do not necessarily have recourse to the verb 'to do/make' for their NV//CP, and, where this latter element varies, Bokarev's explanation for the choice of the locative marker of transitive ES's will not be open to us. We should rather seek to find some generally applicable solution to the problem of the use of locatives in this particular role.

Lezgian differs from the two languages thus far considered in not possessing a system of noun-classes. As the verb knows no personal conjugation either, there can be no agreement between the verb and any other member of the sentence. The majority of verbal roots are neutral with regard to the opposition transitivity : intransitivity. The language is ergative, with the dative case representing the subject for verbs of feeling/perception. The picture so far is, then, quite familiar. Causative-formation is described by Topuria (1959. 83-5). Both synthetic and analytic structures are attested, with the difference that the morphological causative, formed by suffixing -(a)r- (or -d- in the case of a small group of verbs) to the root, is chiefly used to form causatives from basically intransitive roots or to emphasise the transitive function of an otherwise neutral root, whereas the analytic type is the [illegible] usual way of producing the causative of a transitive [illegible]. Now this [illegible]

construction the NV may be either wugan 'to hand over' or, more usually, tun 'to leave', the EV standing in the absolutive (marked by -Vr) used in its purposive sense 'in order to...' (the term 'absolutive' is Topuria's). A transitive ES is put into the locative I, which in Lezgian basically means 'around; towards'[16]. Examples[17]:-

17) didedi xwa qatk-ur-sawa
mother (erg.) son (nom.) | CF |
lie - down
= '(His) mother makes (her) son lie down'.

18) bubadi didediw xwa qatk -ur-iz tazwa
father (erg.) mother (loc. I) son (nom.) | CF | allow/leave
lie - down
(purposive)
= '(His) father makes (his) mother make (her) son lie down'.

19) adan stɣadi ɣirčeqandiw mirg yaɣiz taswa
his brother (erg.) hunter (loc. I) deer (nom.) kill (purposive) allow
= 'His brother makes the hunter kill the deer'.

20) adan ɣiluw wičin papaw sumka
her husband (erg.) his own wife (loc. 1) bag (nom.)
dustuniw wugas taswa
to friend (loc. I) give (purposive)
= 'Her husband makes his wife give a bag to her friend'.

Observe in this last example that the most straightforward of indirect objects (i.e. that following the verb 'to give') is not, as might have been expected, in the dative (dustunis), but in the locative I (dustuniw). Lest it be thought that the use of the locative I might itself be the result of some kind of demotion, we can adduce the non-causative source for (20) as evidence that the locative I is a regular indicator of the indirect object after 'to give' —

20a) dišehlidi dustuniw sumka wutana
woman (erg.) to friend (loc. I) bag (nom.) give (past)
= 'The woman gave a bag to her friend'.

Before leaving Lezgian we have to introduce yet another causative-forming strategy. The KV is awun 'to do/make', and this is preceded by a nominalisation of the embedded clause. Lezgian can form tensed 'deverbative abstract nouns' (see Topuria: 1959. 61-2) by suffixing -wal to the appropriate

participle. The resulting deverbative noun may then decline like any other noun in the language. The arguments of the nominalised verb remain in the cases they would have shown, had the verb itself remained finite. A few examples of the subordinating functions of these deverbative nouns are presented in Jadžiev (1963. 143), but we are here only concerned with their role in Lezgian's causative-forming strategy:-

21) zin stχadi waχaz kic' akwadaywal
my brother (erg.) sister (dative) dog (nom.) seeing (2nd. imperfect)
awuna
make (past)

= 'My brother made (my) sister see the dog', where the EV of perception requires a dative subject. That such constructions are not limited to verbs of perception is confirmed by —

22) adan waχa ruša wičin problemayrikay
her sister (erg.) girl (erg.)[18] her own about problems (loc. III. elative)[19]

fikirdaywal awuna
thinking (2nd. imperfect) make (past)

= 'Her sister made the girl think about her problems'.

As the arguments of the deverbative noun remain those appropriate to the nominalised verb, nothing interesting happens to the transitive ES when this particular construction is used to build a Lezgian causative. Having, therefore, drawn attention to the existence of this particular strategy, we may pass on to consider Čečen.

The Čečen verb does not change for person but, if it happens to be one of those that contain class-markers, it will incorporate the class-marker appropriate to the noun in the nominative — in Čečen there are six noun-classes. The language is ergative, the ergative case being formally distinct from the instrumental. As may perhaps be expected by now, verbs of feeling/perception require a special construction with their subjects in the dative case, whose chief function is to represent indirect objects (see Desheriev: 1974. 42 ff.). Causatives are produced by suffixing the root (i.e. -yta) of the verb d-ita

'to leave' to the verb whose causative is being produced, the resulting causative frequently, as stated in the introduction, implying permission, help etc., rather than pure compulsion. A few verbs are used both transitively and intransitively without there being any morphological change, but generally a given root will be either transitive or intransitive. The NS of an intransitive NV will become NDO — i.e. it will be in the nominative case, the NS being ergative, e.g.:- (after Jakovlev: 1940. 83)

23) a) so w-ōdu
I (nom.) go
= 'I am going'

→ b) as k'ant w-oxū-ytu
I (erg.) boy (nom.) go cause
= 'I make the boy go//send the boy'.

The NS of a transitive NV stands in the locative case[20], e.g.:- (ibid. 84)

24) a) as bolx b-o
I (erg.) work (nom.) do
= 'I work'

→ b) as mašinaškа bolx b-o- ytu
I (erg.) machines (loc.) work (nom.) do cause
= 'I get the machines to work (do the work)'.

The NS of a verb requiring its subject to stand in the dative will remain in the dative when the causative is produced, e.g.:- (ibid.)

25) a) sūna surt go
I (dat.) picture (nom.) see
= 'I see the picture'.

→ b) as hūna surt go- ytu
I (erg.) you (dat.) picture (nom.) see cause
= 'I give you a chance to see the picture//shew you the picture'.

Such, however, is not a complete account of causative-formation in Čečen. There is an alternative strategy where the NV is a non-derived intransitive. It seems[21] that this second method is used where the NS is more 'intimately involved' in bringing about the action of the NV. This time, instead of suffixing the root of the verb d-ita to the NV, the verb d-an (i.e. including the class-marker) 'to do, make' is suffixed to the NV. The NS remains in the nominative case and is thus NDO, e.g.:- (ibid. 72)

26) a) gowr ljēla
horse (nom.) go
= 'The horse is walking'.

→ b) as gowr ljēla-o
I (erg.) horse (nom.) go make
= I lead the horse'.

The admittedly unsatisfactory and imprecise notion of the subject being more 'intimately involved' in effecting the action may become clearer by comparing (26b) with (23b). The translation offered by Jakovlev for the former is quite unequivocally 'lead' (viz. Russian: ja lošad' vožu), whilst this is not offered as a choice for the meaning of the latter, for which the Russian reads as follows:-

a) ja zastavlaju parnja itti; b) ja posylaju parnja.

If 'X leads Y somewhere' he is, in a sense, 'more intimately involved' than if he merely 'gets Y to go//sends Y somewhere'. This is obviously an area requiring further investigation.

Tabasaran is a member of the Lezgian sub-group of the Daghestan family. The language is ergative, with the ergative case also possibly functioning as the instrumental — a use which Magometov (1965. 133) apparently regards as archaic. Verbs of feeling/perception require a dative subject. The northern dialects preserve a class-system — there being only two classes for a) persons and b) things (Magometov: 1965. 80) — which has been lost in the southern dialects, on which the literary language is based. In Tabasaran we meet for the first time a personal conjugation in the verbal system. If the subject (i.e. the nominative noun for intransitive verbs, the ergative for transitives) is 1st. or 2nd. person, then there is suffixed to the verb an element which clearly derives from the relevant personal pronoun, e.g.:- (after Magometov: 1965. 199)

27) uzu aldakura-zu
I fall I
= 'I fall'.

28) uwu aldakura-wu
you (sg.) fall you (sg.)
= 'You (sg.) fall'.

29) dumu aldakura
he fall
= 'He falls'.

In the case of verbs of feeling/perception with their dative subjects, if this subject is 1st. or 2nd. person, then a derivative of the dative form of the appropriate personal pronoun may be fixed to the verb[22], although this is not essential in the southern dialects, e.g.:- (ibid. 209-10)

30) usus uwu kunja(-sus)
I (dat.) you (nom.) love I
= 'I love you'.

In the northern dialects the slot for the class-marker (in verbs containing class-markers) is pre-radical, and the class-marker will, as expected, agree with the nominative noun, so that, in intransitive verbs, both class-marker prefix and person-suffix will correlate with one and the same argument.

Causative-formation is described by Magometov (ibid. 261-2). The NV stands in the infinitive (also called 'purposive form' by Zamangomedov (1967. 553)), which ends in -us/-ūs/-yus. The NV is ɣitus 'to leave'. The NS will, of course, be ergative. Magometov gives no examples of NV's which are clearly intransitive, but we can see from the following what happens to the NS in such cases:-

31) a) bay daqra
boy (nom.) lie down
= 'The boy lies down'.

→ b) dadayi balis daqus ɣitra
mother (erg.) boy (dat.) to lie down leave
= '(His) mother makes the boy lie down'[23].

As the NS becomes NIO (standing in the dative), Tabasaran presents us with an incontrovertible example of extended demotion.

Equally interesting is what happens to transitive NS's. We have not yet met any language of Daghestan where a transitive NS ends up in the regular

indirect object case, the dative, as predicted by the paradigm-case of the Comrie-hypothesis. The case used to represent the ES's in Tabasaran varies according to the dialect, but the bulk of the examples cited by Magometov (ibid. 281) shew the ES as MIO, standing in the dative, e.g.:-

32) duɣu izus daf̲t̲ar u-w-xus q̲ätnis[24]
he (erg.) me (dat.) book (nom.) read leave (past)
= 'He made me read the book'.

Also illustrated are instances of such ES's appearing in the locative ending in -x′, whose basic meaning is 'by (the side of)/around'[25] e.g.:-

33) uzu ɣitun-za balix′ abiz kaɣaz bik'uz
I (erg.) leave I (past) lad (loc.) father (dat.) letter (nom.) to write
= 'I made the lad write a letter to his father'.

Similarly attested is the transitive ES standing in the essive form (in -k) of the locative series whose meaning is 'on (a vertical or inclined plane)' e.g.:-

34) uzu bali-k lexin ap'us q̲itun-za
I lad (loc.) work (nom.) to do leave
= 'I made the lad do the work'.

Although the ergative case, as mentioned above, still has instrumental (Russian = tvoritel′nyj) functions, a special form now also exists to convey instrumentality (orudie dejstvija). This is produced by suffixing -ǰi to the locative in -x′ (at least in the northern dialects: cf. Magometov. 1965. 130-1). This form is also used to represent transitive ES's, e.g.:-

35) dadayi bali-x′- ǰi daxayiz kaɣaz
mother (erg.) son (loc.) (instr.) father (dat.) letter (nom.)
bik'uz ɣitnu
to write leave (past)
= '(His) mother made her son write a letter to his father'.

Finally, the ergative itself is found, although it alternates with the dative in the particular northern dialect concerned, e.g.:-

36) izu širu kitab u-w-xus qetnu-za
I (erg.) girl (erg.) book (nom.) to read leave I (past)

'I made the girl read the book'.

We should also note that the ES for EV's of feeling/perception stands in the dative in the dialect of my informant. His translation of the relevant sentence also introduces us to another causative-forming strategy — namely, the MV is the expression mažbur ap'uz 'to make obliged' preceded by the infinitive or masdar (in -ub) of the EV, e.g.:-

37) a) yiz čučuz xu γābqnu
my sister (dat.) dog (nom.) see (past)
= 'My sister saw the dog'.

→ b) yiz čᵒučᵒ'u čučuz xu rābqūs
my brother (erg.) sister (dat.) dog (nom.) to see (infin.)
mažbur γap'u
obliged make (past)
= 'My brother made my sister see the dog'.

Lest it be thought that the dative is here due to the EV itself, we may also quote the following:-

38) a) xūrčabni merš yiwnu k'ibdi
hunter (erg.) deer (nom.) kill (fut.)
= 'The hunter will kill the deer'.

→ b) duγan čᵒučᵒ'u merš yiwnu k'ub
his brother (erg.) deer (nom.) killing (masdar)
xūrčabniz mažbur ap'ura
hunter (dat.) obliged make
= 'His brother makes the hunter kill the deer'.

And so we come lastly to the Lak-Dargwa sub-group, where we shall mainly concentrate on the K'ubači dialect of Dargwa. K'ubači, like all the languages of Daghestan, is ergative, and verbs of feeling/perception take dative subjects As in Tabasaran, the verb conjugates by class and person. The system is as follows:- there are three noun-classes, exactly as in Avar except that in the plural the marker for classes I and II is b, and for the third class d, (Hagometov: 1963. 67-8). Those verbs containing class-markers accommodate them before the root, and these class-markers correlate

with the nominative argument. Suffixed to the verb are the person-markers, which happen to be wholly identical to the copula (though this is not true of literary Dargwa). These suffixes correlate with the ergative argument (or, in the case of verbs of feeling/perception, with the dative argument[26]) if the verb is transitive, and with the nominative subject of intransitive verbs. As the third person suffix ends in a class-marker, an intransitive verb will correlate both prefixally and suffixally with its subject, whilst the suffixal class-marker of transitive verbs (including verbs of feeling/perception) correlates with the ergative (or dative) subject (Magometov: 1963. 150ff.)

e.g.:- (ibid.)

39) galiy wašiy b-ikul- sa-w
boy (dat.) to go want he
= 'The boy wants to go'.

Causatives are formed by suffixing aqiy[27] 'to overcome' to the IV. The ES of intransitive IV's becomes MDO and, thus, remains in the nominative case, e.g.:- (ibid. 216)

40) abadil gal w- ilg- aqay
mother (erg.) son (nom.) sleep overcome (past)
= '(His) mother made (her) son go to sleep'.

More interesting is the case used to represent transitive ES's. All such ES's stand in the ergative case (except for the Ǎstin sub-dialect) e.g.:- (ibid. 216)

41) atadil galdil k'a ka-b-ič- iyqul- sa-w
father (erg.) son (erg.) letter (nom.) write overcome he
= '(His) father makes (his) son write a letter'.

In the Ǎstin dialect, as in standard Dargwa, the locative in -ši (Ǎstin = -ci) is used, e.g.:-(for standard Dargwa — after Abdullaev. 1971. 58)

42) qubzarli itisi qu b-ac- aqun
peasant (erg.) him (loc.) field (nom.) plough overcome (past)
= 'The peasant made him plough the field'.

The basic role of this locative is to express motion of one object to within another, non-empty object (e.g. water, earth). However, it also serves to

represent the person to whom something is given or to whom speech is addressed— in other words, the case is also endowed with indirect object functions (see Abdullaev: 1961. 180-1//Abdullaev: 1971. 226-7).

Such, then, are the data. As regards the variety of causative-forming strategies to be found among the languages of Daghestan, the material presented above speaks for itself. It, thus, remains to discuss the second of the issues mentioned in the introduction, namely the question as to how the languages concerned handle the increase in valency of the verb resulting from its transformation from simple verb to corresponding causative. In general, the SS of intransitive SV's behaves exactly as predicted by the paradigm-case of the Comrie hypothesis — it becomes MDO and thus, given the ergative nature of the languages reviewed, stands in the nominative case. The one exception to come to light is Tabasaran, where we have a case of extended demotion with the SS by-passing the first available slot on the Accessibility Hierarchy (i.e. the Direct Object slot) to occupy the next empty position, which is that of Indirect Object.

The treatment of transitive SS's, by comparison, is considerably more problematical. Most straightforward are those dialects of Tabasaran where it stands, as expected, in the dative. However, in the majority of the languages examined above, we find transitive SS's appearing in one of the locative cases, which is also in Avar the case employed to represent the logical subjects for verbs of perception. When dealing with Avar, we queried the explanation offered by Bokarev to account for the use of the essive component of the locative I series to express transitive SS's in that language, preferring to seek a general explanation for the frequent use of locatives in this role throughout the Daghestan area. At first sight it would seem that we are dealing with straightforward cases of extended demotion, whereby a transitive SS travels down the Hierarchy not to the first available empty slot, which

would be that of Indirect Object, but to the one following this, namely that of Oblique. Examples of extended demotion are by no means uncommon, as Comrie himself acknowledges (1975. 19ff.). However, it would seem that there is some slight justification for adopting another solution. A review of the various functions of the relevant locatives reveals that they are virtually all possessed of certain indirect object functions. We, therefore, propose that, whilst the dative case in these languages might be regarded as the unmarked indirect object case, the appropriate locative could be interpreted as the marked indirect object case, by virtue of its fulfilment of this role in a limited number of contexts. We may then proceed to suggest that the treatment afforded to transitive ES's in these languages does indeed conform to Comrie's 'paradigm-case', with the added proviso that the indirect object case chosen for the purpose is the marked locative rather than, as would otherwise be anticipated, the unmarked dative. Of course, on the information available, the Tabasaran locative in -x' does not fully conform to this pattern, but, as we saw, there is some (admittedly remote) reason to believe that this locative might well have indirect object functions too. The same cannot be said of the Tabasaran locative in -k or of the instrumental in -ǰi. At present, one must conclude that, in those dialects where these cases are employed, we are indeed dealing with instances of extended demotion.[28]

We are left with the phenomena of the 'affective' case, in Andi, and the ergative case in K'ubaǰi and Tabasaran, as the means of representing transitive ES's Let us first examine K'ubaǰi (and Tabasaran). Clearly, we can no longer contemplate the possibility of the ES here becoming MIO. Can we, then, assume that the ES standing in the ergative is possessed of some Oblique function? If so, it will be the instrumental sub-heading of Oblique with which we shall be concerned. Now, as Gaprindaǰvili (1956. 511) states in connexion with the dialects of Dargwa: 'In one group of dialects and sub-dialects the ergative

fulfils the role of the instrumental case (dialects of the Uraxin model...), in the second group, both the ergative as well as a special form of this [sc. instrumental — B.G.H.] case appears in the role of the instrumental case. In this latter group of dialects and sub-dialects we are dealing with a transitional stage: the special form of the instrumental case has not yet fully succeeded in winning for itself a place in the case-system and serves as a double for the ergative...'. Since a special form does exist in K'ubači for the instrumental (it is -ci-la, cf. Magometov: 1963. 112), if the ergative case does indeed have an instrumental function in the construction being considered, then it might be expected that there would be some evidence of forms in -ci-la appearing in the role of representing transitive ES's — no such instance is mentioned by Magometov in his monograph on the language (1963), although, as we have seen, he studiously mentions all variants for the dialects of Tabasaran when describing that language (1965). Indeed, elsewhere in the complex of Dargwa dialects, as we know, it is not the instrumental that is found in the role under scrutiny but the locative in -si. We, therefore, seem to have an intra-Dargwa opposition 'ergative : locative in -si'. This, then, implies that the ergative in this particular construction is not functioning as an instrumental. What can it be? Let us suppose that in such cases the rule denoting transitive ES's is simply lost in the grammars of K'ubači and the relevant dialect of Tabasaran. If the case of these transitive ES's is then assigned on the basis of their status as subjects (sc. of the lower verb), we shall have accounted for the occurrence of the ergative case here and, at the same time, we shall have uncovered a simplification in the grammars of these dialects in comparison with the grammars of their respective standard languages. But does this lead to the conclusion that sentences containing transitive ES's in the ergative are to be interpreted as manifesting two subjects — the transitive ES and the MS? The answer seems to be 'yes <u>and</u> no'! If we are right

in our explanation of the use of the ergative to represent transitive SS's, then we have no option but to conclude that these nouns are functioning as 'subjects'. Recall, however, that both the dialects concerned have developed a rudimentary personal conjugation (in Tabasaran only for the first two persons, in K'ubachi not in every tense), whereby the 'subject' is marked sufixally in the verb. But this does not result in there being two subject-suffixes attached to the resulting causatives of transitive SV's in these two dialects, the one referring to the MS, the second to the transitive SS. Any subject-marker that may be attached to such verbs will correlate exclusively with the MS. If we accept that the notion "Subject" is defined not in terms of a single property, but rather in terms of a cluster of characteristics (see Keenan: 1976), then we shall be justified in claiming that, whilst these interesting sentences do indeed contain two entities which are both endowed with subject-properties, nevertheless, by virtue of the existence of subject-marking in the verb, that entity which has the potential for correlating with such a subject-suffix is inherently the 'stronger' subject of the two. Thus, in the final analysis, whilst we may feel absolutely secure in saying that the MS is the 'subject' of the resulting causative, what role in the resulting sentence are we to assign to the MS? It seems there is no alternative to interpreting it as the sentence's 'secondary' subject[29].

We are left with Andi. If we bear in mind that, apart from its role in the causative construction, the Andi affective case is used solely as the marker of the logical subject with verbs of feeling/perception, we must ask ourselves what precisely is the function of this affective noun in such sentences? — is it the grammatical indirect object or the grammatical subject? Unhappily there is no information immediately available which allows us to answer this question decisively. One may surmise that in origin the nominative argument was the grammatical subject of the sentence and that the

affective argument was the grammatical indirect object[30], so that the affective case would have been the language's marked indirect object case (in opposition to the unmarked dative) appearing with a set of lexical items (verbs of feeling/perception) which would be shewn in the lexicon as requiring to be construed with just this case. If it should turn out that the affective argument can be demonstrated to be functioning still as the grammatical indirect object, then it will be possible to conclude that the transitive ES's of Andi are demoted to Indirect Object position, being placed in the marked indirect object case, just as we argued in reference to those languages where the ES's appear in locative cases. On the other hand, if the affective case with verbs of feeling/perception is shewn to represent, in the modern tongue, the grammatical subject, then we shall be able to argue that Andi too, like K'ubačI, permits two subjects to appear in sentences where there appears the causative form of a transitive EV. If Andi can indeed be shewn to possess two subject-cases for transitive verbs (i.e. the ergative and affective), then the affective will be styled the 'marked' subject-case by virtue of its occurring with a very limited set of verbs. Now, if we are right in defining the role of the locative cases where they represent transitive ES's as being that of a marked indirect object, then whatever principles underly the choice of the marked indirect object case in those languages for the representation of transitive ES's may also underly the choice of the marked subject-case for this same role in Andi. Another contributory factor, although we have no means of confirming such a hypothesis, may be the need to avoid the ambiguity that might result from having two nouns in a sentence both in the ergative case and both 'subjects' when the language lacks any means (other than the word-order) for distinguishing between them, such as the existence of an albeit rudimentary personal conjugation in K'ubačI and Tabasaran. A hint from the related Avar language that the affective may well be the grammatical subject with verbs of feeling/perception is that it can be demonstrated that the locative argument

with verbs of perception in Avar does indeed represent the grammatical subject. For example, the locative argument is the control for reflexivisation, as may here be seen:-

43) do<u>s</u>da ǯi-w-go w-ix'ana
he (loc. I) self (nom.) see (part)
= 'He saw himself'[31].

This last point raises another question — if the locative in Avar represents the grammatical subject for verbs of perception, since that same case marks transitive ES's, why do we not argue that in Avar a transitive ES does not undergo demotion, but rather remains functionally a subject, being placed in the locative I for the same reasons just suggested for the choice of the affective case in Andi, namely because of the possible necessity of avoiding ambiguity in the marking of the MS? The answer is that the locative I in Avar clearly is not restricted to the one role of marking the subjects for a select, semantically coherent set of verbs, as is the affective case in Andi. It was deemed advisable to seek for a general feature that would account for the use of the various locatives in all the languages here considered, and that, as mentioned above, proved to be an indirect object function, for, significantly, although a locative is used to convey transitive ES's in Čečen and Lezgian, it is the <u>dative</u> that these languages employ for the representation of the subject with verbs of feeling/perception. Faced, then, with a choice of ascribing the phenomenon of Avar's transitive ES's appearing in the locative I to either that case's subject functions or to its indirect object functions, it was judged more acceptable to choose the latter, which has the advantage of being both the less controversial choice and the one which allows a generality to be advanced which extends to all those languages of Daghestan which use locative cases for this particular role in their causative constructions.

Footnotes

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1) The last two slots are not relevant to the present discussion.

2) See Radford (1978) for a proposal as to why the Oblique expression for such ES's often corresponds to the language's expression for the agent-phrase in the passive construction.

3) Not all commentators would place the Nax languages (Bac, Čečen, and Ingušˇ) on a level with the other three groups of the Daghestan family, preferring rather to set up a North Central Caucasian language-family comprising Nax alone — see the discussion in Klimov (1965. 49-50).

4) Even though there <u>are</u> grounds for supposing a connection between N.W. and N.E. Caucasian.

5) For Georgian, which is not typologically different from its sister-languages (Laz, Mingrelian and Svan), see Tschenkéli (1958), Vogt (1971), Harris (Forthcoming), Schmidt (1966), Gecadze, Nedjalkov and Kolodovič (1969). For N.W. Caucasian (Abkhas, Circassian and Ubykh) see Dumézil (1975. 171-9), and, with special reference to Abkhaz, Gecadze and Nedjalkov (1979).

6) In Ubykh, where the EV belongs to class D, G or H, the causative is produced by means of a non-finite form of the EV itself followed by the morphological causative of the verb 'ə' 'to be(come)' (Dumézil: 1975. 178), whilst in Abkhaz the causative of a tripersonal EV is produced by a collocation of a non-finite form of the EV + the morphological causative <u>or</u> non-causative form of the verb ḃ-q'a-c'a-ra 'to do/make' — in other words, in these instances the regular synthetic causative yields to an analytic structure in order to avoid over-loading the verbal complex of the resulting causative with too many pronominal prefixes, although Circassian and, under Circassian influence (Lomtatije: 1944. 130-31), T'ap'anta Abaza manifest a greater degree of tolerance in this regard.

7) A macron under a consonant indicates intensivity; <u>tl</u>' represents the intensive, ejective lateral affricate.

8) This is true only for verbs of Conjugation I. We shall not needlessly complicate the discussion by introducing the variants characteristic of Conjugation II, for nothing significant would be gained thereby.

9) Whilst the same is true of Avar, as we shall see, the equivalent formation in Georgian could <u>only</u> mean 'he had the door opened'

(i.e.	man	w'ari	gaaγebina),
	he (erg.)	door (nom.)	he-had-it-opened

where the full force of the CF is preserved, but the ES is left unexpressed.

10) The basic meaning of the locative I is 'on'. It does, however, perform a variety of other functions, which are listed by Bokarev (1949. 192-6) Mention may here then be made of five of these:- i) representation of the addressee with verbs of 'speaking', 'whispering' etc....; ii) representation of the person 'taught'; iii) 'embrace' and 'seize' are intransitive in Avar and require an 'indirect' object in the locative I; iv) representaion of 'X' in 'to be like X'; v) representation of the object of transitive verbs expressing direct physical action, e.g. 'hit', 'push' etc... In many languages some, if not all, of these roles would be fulfilled by a simple dative (i.e. they would be regarded as indirect objects).

11) -b- is the class 3 marker.

12) Unless otherwise stated, the Avar examples were translated from Russian by my friend Boris At'aev of Xunjax.

13) Apart from example (10b) above, the other such example was:-

doɫul	yacaɫ	urɣiza-y-una		yas
her	sister (erg.)	think	cause (past)	girl (nom.)

žindirgo	problemabazda	t'asan
her own	problems-about	(= loc. I)upon (= about)

= 'Her sister made the girl think about her own problems'.

14) This example was:-

a)

dosul	wacas	čanaqan	rit'uč'	č'waze
his	friend (erg.)	hunter (nom.)	deer (nom.)	to kill

t'amule-w	w-ugo
allow (partic.)	(copula)

= 'His friend is getting the hunter to kill the deer', where the MV manifests the class I marker appropriate to its direct object (čanaqan). For comparison the remaining examples are set out below:-

b)

insuca	ebel	was	w-egiza-	w-ize	t'amule-y	y-igo
father (erg.)	mother (nom.)	boy (nom.)	lie down	cause	allow (partic.)	(copula)

= 'His father is making his mother make the boy lie down'.

c)

doɫul	rosas	č'užu	t'amule-y	y-igo
her	husband (erg.)	woman (nom.)	allow (partic.)	(copula)

suhka	hudulaɫe	tɫ'eza-b-ize
bag (nom.)	to friend (dat.)	(cause)

= 'Her husband is making the woman give a handbag to her friend'.

d)

dir	wacas	yacalda	hwey	b-ix'iza-b-ize		t'amuna
my	brother (erg.)	sister (loc. I)	dog (nom.)	see	(cause)	allow (past)

= 'My brother made my sister see the dog'.

15) In Georgian the verb 'to love' similarly requires its subject in the dative, e.g.:-

mas u- q'var- s igi
he (dat.) he - loves - her her (nom.)
= 'He loves her'.

Although a regular morphological causative may be formed from the root -q'var-, the meaning will be 'to make X fall in love with Y', e.g.:-

šeaq'varebina tavi da šeirto
he-made-her-fall-in-love-with self and he-married-her
= 'He$_i$ made her fall in love with him$_i$ and married her'.

16) Talibov and Gadžiev (1966. 553) go on to list as the meanings of this locative I:-

a) place around which an action occurs;
b) instrument of action;
c) possession;
d) representation of transitive ES;
e) object of comparison;
f) uses in association with various postpositions.

17) All examples were translated from Russian by a Lezgian student at the university of Maxačkala.

18) The verb 'to think' is evidently transitive in Lezgian as it requires an ergative subject.

19) The locative III basically means 'under'; thus, this word literally means 'from under her problems', for in each of the five series of locatives there are three forms — the first indicates position (essive), the second (allative) indicates motion towards that position, and the third (elative/ablative) indicates motion away/out from that position. There is no allative in locatives of the fourth series (Mejlanova: 1967. 533).

20) Dešerieva (1974. 71 ff.) discusses the semantic-field of this case. We may note, however, the sentence given by Maciev (1961. 580):-

k'anta ēlira djēga
son (erg.) say (past) father (loc.)
= '(His) son said to (his) father', where the locative noun represents the verb's indirect object.

21) The various commentators do not deal with this derivational process under the general rubric of causative-formation — this latter being confined to the suffixation of 'd-' ita. Forms produced by the suffixation of d-an are called 'transitives derived from intransitives' (Jakovlev: 1940. 72; Maciev: 1961. 600). The suggestion advanced in the text is based on a comparison of the meanings of forms in d-an with the meanings of those in 'd-' ita in the Čečen examples given by Jakovlev (1940) and on a similar comparison of the examples for the parallel derivational processes in the related Bac language as quoted by Xolodovič, Xrakovskij and Črelašvili (1969. 103-4). Unfortunately, no single root appears in either corpus of material shewing both derivatives, which would allow us to test our suggestion. In the absence of such evidence, the statement in the text must be regarded as tentative.
We may, in passing, note that in Avar the difference between

sentences such as (26a) and (26b) would not be a matter of derivational morphology but merely of the syntax of the sentences concerned — cf. (after Čikobava/Cercvaje: 1962. 245)

a) emen ana
father (nom.) went
= 'Father went'.

b) inṣuca roxʼo-w-e was ana
father (erg.) into-wood son (nom.) took
= 'The father took his son into the wood'.

22) For a discussion of a similar problem in Udi, another Lezgian language, see Harris (Forthcoming a). One of the Nax languages, Bac, has also developed a similar personal conjugation, but in this language the dative subject of verbs of feeling/perception does not bring about the suffixation onto the verb of the appropriate person-marker, e.g.:- (after Deseriev: 1953. 233)

son ho w-abc'ŏ
I (dat.) you (nom.) know
= 'I know you'.

As Bac allows the ergative construction with such verbs, we may compare with the above the following —

as ŏ-abc'o-s ho
I (erg.) know you
= 'I know you'.

It is tempting to try and account for the obligatory presence of a person-suffix on such verbs in North Tabasaran, for the optional presence of the same in South Tabasaran, and for the absence of the same in Bac in terms of the degree to which the dative noun is felt to be not only the logical subject of the verb, but also its grammatical subject — South Tabasaran would, thus, represent a transitional stage. Such an explanation may well be close to t' truth, but one has to bear in mind the complexity of person-marking by suffixes in the Tabasaran verb; Magometov (1965. 202 ff.) gives examples of both subjects and direct objects being so marked, and of direct objects alone correlating with a person-suffix in those cases where no subject-marker is permissible (i.e. cases of 3rd. person subject). Of particular relevance, however, to the immediate problem are instances of a straightforward indirect object so correlating with a person-suffix, such as this example from Xanmagomedov (1970. 94)

ŭzuz dustru kitab tuwun-zuz
to-me (dat.) friend (erg.) book (nom.) give to-me
= 'A friend gave me the book'.

23) Unless otherwise stated I owe my Tabasaran examples to a very helpful member of the Dekanate (Dean's Office) of Maxačkala University.

24) This example is from one of the northern dialects where the verb 'to leave' is qātus — N.B. North Tabasaran '-s' for southern '-z' in the various infinitives.

25) It should be recalled that the locative I of Lezgian, which is also used to represent transitive ES's, also has the basic meaning of 'around'

(Russian = okolo). However, this same Lezgian case was used in example (20) to represent a simple indirect object. The non-causative form of that same sentence was translated into Tabasaran as follows:-

diš̌ahliyi	č̌an	ildši	-h-	na	sumka	tuwna
woman (erg.)	her	friend	(loc.)	towards	bag (nom.)	give

= 'The woman gave a handbag to her friend', where -na builds the allative form of the locative in -h (which is a dialectal variant of -x′, cf. Magometov: 1965. 123). This, then, testifies to indirect object functions for the locative series in -x′/-h (each series of locatives has an essive, an allative and an elative component, as in Lezgian (and Avar)), even if only for the allative component. We should stress that the first series of Lezgian locatives also has this three-way division. And so, it is a little surprising that the essive form appears in (20) and not the allative, which would have been duatuni-w-di. On the basis of the Lezgian evidence one may well wonder if the simple essive in -x′/-h might not also be able to function as an indirect object marker in Tabasaran. Unfortunately, no evidence is available to confirm such a supposition. The one book devoted to the locative case-system of this language, which might have been able to throw some light on the problem, is unobtainable — viz. Xanmagomedov (1958).

26) This fact allows us to treat the dative argument of such verbs as not only the logical but also the grammatical subject. See the arguments for the verb diges 'to love//want' of literary Dargwa in Abdullaev (1959), repeated in Abdullaev (1961. 157 ff.).

27) This is the perfective form; the imperfective will be iqiy. In K'ubači the EV also changes for aspect, whilst only the EV does so in literary Dargwa (Magometov: 1963. 213-4).

28) N.B. that examples (33) and (35) already contain an EIO. One might, therefore, suspect that the locative in -k or the instrumental are only used when the Indirect Object slot is already being occupied, the ES being put into an oblique case to avoid syntactic doubling on Indirect Object. The following examples from Magometov (1965. 282) show this suspicion not to be justified:-

dunu	ǧitnu	unux′	lǎx′in	ap'us
her (erg.)	left	us (loc.)	work (nom.)	to-do

= 'He made us do the work'.

uru	duǧa-x′-	ǧi	lǎx′in	ap'us	yitar-	za
I (erg.)	you (loc.)	(instr.)	work (nom.)	to-do	not-leave	I

= 'I do not compel you to do the work'.

29) Magomedbetkova (1978. 237-8) comments on the existence in the southern dialect of Arvax (one of the Avar languages) of transitive ES's standing in the ergative case (as do the NS's of this language also). She too concludes that both ergative nouns may be interpreted as 'subjects'. It is of interest to note that in Arvax alone of the Avar group of Daghestan languages there has also developed a rudimentary personal conjugation of the verb (as in Tabasaran and K'ubači), although this development seems to be confined to the northern dialect of Arvax (Magomedbetkova: 1967. 79) where the ergative marking of transitive ES's is apparently rarer than in the southern dialect (Magomedbetkova : 1978. 237). Thus there will evidently be no justification for differentiating between 'primary' and 'secondary' subjects in southern Arvax.

31) This example I owe to a personal communication from Simon Crisp, who also informs me that similar arguments may be adduced as regards conjunction-reduction and Equi-NP-deletion. In Georgian also the dative case with such 'inverted' verbs is certainly the grammatical subject, e.g.:-

mas u- q'var- s tavi
he (dat.) he love it self
= 'He loves himself'.

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SUBJECT MARKING IN SOME LANGUAGES OF DAGHESTAN*

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0. The aim of this paper is to present data on the ergative construction in Avar[1] in some detail, with a view particularly to seeing to what extent the traditional categories subject and object, transitive and intransitive, are applicable in this language. Some attempt will also be made to interpret the facts of Avar in the light of the general move in the languages of the Caucasus from class to personal conjugation (for which see Andguladze 1968), and to this end data from Dargua, Tabasaran and Udi will be examined.

1. Before looking at the Avar material, a few words must be said on the subject of concord in the Avar sentence. This is expressed by indicators of grammatical class, of which there are four (strictly speaking three, but the plural category may be reckoned to all intents and purposes to constitute a fourth class): w (male persons), j (female persons), b (the rest of the animate, inanimate and abstract world) and r (→l in word-final position, plural marker for all classes). These class markers appear in all adjectives, many verbs, some adverbs and a few substantives, and may be illustrated by the following sentences[2];

(1) ki-ʉ-e hiṭina-ʉ ʉ-as une-ʉ ʉ-uge-ʉ
wherelLLAT little boyABS going beTENSE
"Where is the little boy going?"

(2) ki-j-e hiṭina-j j-as une-j j-ige-j
"Where is the little girl going?"

note; j-u→j-i is a regular phonetic change.

(3) ki-b-e ḳudija-b baç une-b b-uge-b
"Where is the big wolf going?"

(4) ki-r-e hiṭina-l l'imal une-l r-uge-l
"Where are the little children going?"

2. The following principle adopted for preliminary classification of the data is intended to be as neutral as possible, so as not to impose a preconceived interpretation on the material. The examples will be classified, following Lyons (1968:350), according to the number of noun phrase arguments in a given construction,

a principle characterised elsewhere (Comrie 1975) as predicate valency. This approach has been followed also, to varying degrees, in other works dealing with syntactic relations in Avar; the nominal arguments have been called actants (Černý 1971), nominale Satzteile (Bechert 1971) and déterminants (Tchekoff 1972). Comrie (1978) suggests the terms S (the single argument of an intransitive verb), A and P (the two arguments of a transitive verb), which will be adopted here.

2.1. Turning first of all to models where the verb has a single argument, one finds a variety of constructions[3];

(5) w-as w-ekerula
boyABS runTENSE
"the boy runs"

(6) çul goţule-b b-ugo
woodABS cutting beTENSE
"the wood is being cut"

(7) doklad goţ-iza-b-ule-b b-uḳana
speechABS cutCAUSTENSE beTENSE
"the speech was interrupted"

(8) čanaqan reč̣-ar-ule-w w-ugo
hunterABS shootDURTENSE beTENSE
"the hunter is shooting"

(9) tumanḳ reč̣-ar-ule-b b-ugo
gunABS shootDURTENSE beTENSE
"the gun is being shot"

(10) dun kwanale-w w-ugo
1sgABS eating be[illegible]
"I am eating"

(11) Musacʒa çalule-b b-ugo
MusaERG reading [illegible]
"Musa is reading"

(12) dun çalule-w w-uḳana
1sgABS reading beTENSE
"I was reading/studying"

From a formal point of view, the identity of these constructions is striking. Apart from (11), which will be interpreted (following Bechert 1971:143) as an elliptical construction where the class indicators (-b b-) represent a second argument, there is

concord in all the examples between the verb and its single argument, which always stands in the absolutive case. If one looks at the English glosses and translations of sentences (5)-(12), however, it is clear that a wide variety of grammatical relations is represented. The simplest way of explaining this, of course, is to adopt a notion of "subject" wide enough to cover all the relations represented, as is done in languages with a nominative-accusative construction; but the problem with this in Avar, as in other ergative languages, is that when one comes to constructions where the verb has two arguments, the argument which has been defined as the subject now becomes the object; i.e. the S of a construction with a verb and a single argument coincides, in terms of case marking and verbal concord, with the P of a construction where two arguments are present, whereas in languages with a nominative-accusative construction the coincidence is between S and A (cf. Comrie 1978:331-3). This indeed is the central problem of the ergative construction, and a variety of solutions to it have been proposed; for instance, the ergative construction has been seen as passive (in which case the argument in the absolutive case is always the subject), or as neutral (the whole weight of expression being thrown onto the verb, and the notions subject and object denied any validity whatsoever).

The line of approach to be followed here is that of Comrie (1978:379-81), namely that the need to discriminate morphologically between subjects and objects is felt only in constructions where both occur. In models containing a verb and one argument, then, no need is felt to express the distinctions between the various grammatical relations overtly, for instance by means of case marking[4].

2.2. For models containing a verb and two arguments, Avar presents some very interesting material;

(13) dica ṭex' çalule-b b-ugo
1sgERG bookABS reading beTENSE
"I am reading a book"

(14) insuc,a dun su-eza-w-una
fatherERG 1sgABS comeCAUSTENSE
"father brought me"

(15) ebel ça b-akule-j j-igo
motherABS fireABS lighting beTENSE
"mother is lighting the fire"

From these examples one may draw the following conclusions. Firstly, there is not a complete correspondence of morphological categories with syntactic functions; for instance, a morphological causative is used in sentences (7) and (14), as well as in more familiar causative constructions like;

(16) dice dosda texʼ çal-iza-b-ule-b b-ugo
1sgERG 3sgLOC bookABS readCAUSing beTENSE
"I am making him read the book"

There is thus strong evidence for linking the potential of a given verb to occur in different kinds of construction, and the morphological adaptations made to it in these various constructions, with syntactic features peculiar to the deep structure of individual verbs (cf.e.g.Chomsky 1965:119), which may be seen as a case-frame determining the kind and number of arguments occurring with that verb (Fillmore 1968:77). This seems the test explanation also of pairs like;

(17) çija-b xabar b-aççana
new informationABS comeTENSE
"the news came"

(18) wasas kaçat b-aççana dije
boyERG paperABS comeTENSE 1sgDAT
"the boy brought me paper/the letter"

where the root of the verb is formally neutral for the distinction transitive vs. intransitive, this being conveyed by the meaning of the verb (which determines what kinds of construction it can occur in) and rules for case marking and concord in the different constructions. This general principle, which of course is by no means peculiar to Avar, or even to languages with a similar structure, is clear enough; the detailed nature of the rules, which for example allow the same verb to occur in sentences (17) and (18) but which in another case would require the use of a morphological causative in the transitive construction, however, remains unclear.

Secondly, and more interestingly, sentence (15) provides grounds for uniting ergative and absolutive arguments in a single category "subject of". Were it not for the existence of this model, the

Avar data given here could be explained as a hierarchy of constructions, moving from models with one argument which is always in the absolutive case, through models with two arguments - one ergative, the other absolutive - to models with three arguments - one ergative, one absolutive and one locative; the distribution of verbs among these constructions being determined by syntactic features, or case-frames, attached to individual verbs. Such an explanatory framework, for instance, is proposed by Lyons (1968, chapter 8). If such a hierarchy is proposed at a deep enough level, of course, it can be claimed as valid regardless of variations in case marking or verbal affixation; to do this, however, sheds little light on the structure of individual languages, and so the account here will leave such general conceptions and attempt instead to elucidate the evidence of variation in Avar case marking and class concord found in the material presented. The model exemplified in sentence (15), though less common than (13), is not unusual in contemporary Avar[5]. The explanation given traditionally for such constructions (for instance, by Bokarev 1949: 113-5) is that they are complex constructions with two predicates, i.e. that

(19) hel nux ha-b-ule-l r-ugo
3plABS roadABS making beTENSE
"they are building the road"

is to be analysed as hel (nux habule-)-l rugo[6], contrasting with the ergative structure

(19a) hez nux ha-b-ule-b b-ugo
3plERG

Bokarev also points out, however, that there is a difference of meaning between the two constructions, (19a) being a simple statement of the action as occurring, while (19) is a statement that the A nominal is engaged in performing the action. Without denying the connection of this model with the extended function of participles (see note 6), the second feature of the construction - its processual or durative sense - will be concentrated on here.

The standard school textbook of Avar (Qurbanov 1973) treats this construction as a way of describing a process; seeing the action, as it were, as an attribute of the subject. Hence, constructions like the following (cited from Qurbanov 1973:135) are viewed as

equivalent;

(20) was ţ̣urdule-w̄ w-ugo
boyABS dancing beTENSE
"the boy is dancing"

(21) was qwa-dar-ule-w w-ugo
writeDURing beTENSE
"the boy is writing"

(22) was lʿim ţole-w w-ugo
waterABS pouring beTENSE
"the boy is pouring water"

(23) was surat b-aqule-w w-ugo
pictureABS painting beTENSE
"the boy is painting a picture"

The unifying element here appears to be the concept of durativity of the action denoted by the verb, which is seen as taking place in time, but without necessarily being completed, there being consequently less emphasis placed upon the object of the action. These are parallel constructions in many other languages of the Caucasus (for a general survey see Catford 1975:32-45); in the North-East Caucasian (Nakh) language Batsbi, for instance, pairs like the following are found (Dešerijev 1953:231);

(24) ās botx teg-b-o
1sgERG workABS doTENSE
"I am working"

(25) so botx teg-b-uin w-a
1sgABS working beTENSE
(same meaning)

In sentence (25) there is a "nuance of durativity" which "does not depend upon the aspect of the verb, it is expressed by the general construction of the sentence as a whole" (Dešerijev 1953:239). This seems to be an exact parallel with the situation in Avar, where the construction with a morphological durative - sentences (8), (9) and (21) - is extended to other verbs, and expanded to allow the inclusion of a P nominal. It is worth noting, too, that the concord marking in sentence (25) is exactly the same as in (15), (19) and (23), which provides further evidence for seeing a connection between this extended durative construction and the "polypersonal" concord marking of participles in complex sentences

(cf. note 6).

3.1. The contention here, however, is that this construction, which in Avar is still a less common variant than the standard ergative construction where morphological ergativity at least is consistently marked (cf. sentences (13),(18)), represents a move towards universal subject marking, a move which can be traced in other languages of the area. In Dargwa, for example, the standard ergative construction includes in some cases a polypersonal verb (S.Abdullaev 1954:107);

(26) nuni gazeta b-uč̣ul-ra
1sgERG newspaperABS readTENSE
"I am reading the newspaper"

where the verb agrees with its A in person and its P in class. As well as this construction, however, there exists a strikingly different alternative;

(27) nu gazetali w-uč̣ul-ra (<*u-ucul-ra)
1sgABS newspaperERG readTENSE
(same meaning)

Here, first of all, the case marking is the reverse of that found in the ergative construction; this is different from the situation of Avar or Batsbi, but similar to that of the Bǐedux dialect of Circassian (cf. Anderson 1976:21). Secondly, it has been noted that this construction occurs only with verbs of durative aspect (Byxovskaja 1938:59); this shows some similarity with Avar and Batsbi, and incidentally is also interesting from the point of view of split ergativity, the limitation of the ergative construction to certain temporal or aspectual forms of the verb (Comrie 1978: 350-5), such as is found in Georgian. Thirdly, it has been noted that such constructions, where the A is absolutive, are less object-orientated than "classical" ergative constructions (cf. Catford 1975 and references) - this is presumably connected with the incomplete, processual meaning of the verbs involved. Finally, as Z.Abdullaev points out (1971:202,207), in this construction both the initial class indicator and the final personal affix refer to the A nominal in the absolutive case. In sentence (27), then, we have the exact reverse, in terms of verbal concord and case marking, of the Avar type represented by sentence (13). In Dargwa, however, it is limited to the durative construction: it should also be noted that the marking of ergative arguments on

the verb is limited to first and second persons, there being no third person verbal affix.

3.2. In other languages, the further development of this model is linked with the breakdown of the class system. This is shown by Tabassaran, where the Northern dialect (which has a common border with Dargua, a language having grammatical classes) has retained a class system - albeit in a simplified form -, whereas the Southern dialect (bordering on the Lezgi language, which appears to have lost its class system in the distant past) has not done so. Thus, in Tabassaran one finds variants like the following (Magometov 1965:198-9);

(28) izu d-isnu-za baj (Northern dialect)
1sgERG/ABS catchTENSE boyABS
"I caught the boy"

where the verb is polypersonal, contrasted with;

(29) uzu bisura-za baǰ (Southern dialect)
(same meaning)

where the only argument marked on the verb is the A uzu. Further, Tabassaran also has examples of the type represented in Aver by sentences (15), (19), (22) and (23), for instance (Žirkov 1948:120);

(30) dumu zarafatar aguri ǯulu
3sgABS jokePLUABS doing beTENSE
"he is playing jokes"

Of equal interest is the evidence of full personal conjugation even in constructions with a third person ergative A nominal. In Uslar's unpublished grammar of Tabassaran one finds the following variants (Magometov 1960:200-2);

(31) duǰu izu najib iqurdu-za
3sgERG 1sgABS naibABS make-TENSE
"he makes me a naib"

where the principle of marking a first or second person pronoun argument on the verb irrespective of whether it is A or P (a principle adhered to in Dargua, and apparently also in Lak) is observed, and

(32) duǰu izu najib iqurdu-r
(same meaning)

where only the ergative A is marked on the verb, and we have full personal conjugation with concord according to the nominative-accusative pattern.

3.3. In the case of Udi, this process appears to have come full circle, in that the A of a transitive construction, though it still stands in the ergative case, is the only argument marked on the verb (by a personal affix), so that subject marking is the same in both transitive and intransitive constructions; moreover, the P can occur in an oblique case (the dative occurring facultatively with the absolutive), as illustrated by the following examples (after Džejranišvili 1971:303);

(33) Šeno zom-ne-baksa
3sgABS learnTENSE
"he learns/studies"

(34) Šeṭin zom-ne-baksa dās/dāsnu(x)
3sgERG lessonABS/DAT
"he learns a lesson"

The evidence of verbal affixation in Udi, then, points to equivalence of the absolutive and ergative nominals in the two constructions illustrated here, in striking contrast with the situation predominant in Avar, where in both constructions concord holds only between the verb and its absolutive argument, regardless of whether this latter is S or P.

4. The conclusion to be drawn from all this material, it seems, is that Avar and, to varying degrees, the other languages of Daghestan, exhibit morphological ergativity (in their case marking and verbal concord) but not syntactic ergativity. This can be shown by applying to Avar two of the tests for syntactic ergativity outlined by Anderson(1976) and Comrie(1978), namely the treatment of the A of an embedded verb, and the formation of coordinate sentences where one of the components is a transitive, the other an intransitive, sentence. In the former case, the Xinalug examples discussed by Comrie(1978:345) have exact parallels in Avar (Bokarev 1949:148);

(35) dije kupecl'un l'uhine baṭ̣an guro
1sgDAT merchantCOMPL becomeINFIN having wished not be
"I do not want to become a merchant"

(36) dije gama gaǯazegi boţʒun bugo
1sgDAT shipABS repairINFIN having wished beTENSE
"I wanted to repair the ship"

where an embedded transitive and intransitive sentence are treated in exactly the same way (the evidence that the As of such embedded sentences, where they differ from that of the main sentence and thus are not omitted, occur in the same form as in non-embedded constructions, can be found in other examples given by Bokarev on the same page, and not reproduced here).

For coodinate sentences of the type mentioned, one may cite the following (Bokarev 1949:222);

(37) badib čwanila insucʒa asda waɣanila sebanila[8]
reproached fatherERG 3sgLOC was furious was angry
"father reproached him, and was furiously angry"

(38) reḳanila was čoda ţʒabunila
mounted boyABS horseLOC struck
"the boy climbed onto the horse, and struck it"

In sentence (37) the argument of the second and third verbs would be in the absolutive case, but is seen as the equivalent of the ergative argument in the previous component sentence, and omitted; in (38) the argument of the second verb would be in the ergative case, but is omitted for the same reasons. Parallel Tabassaran examples are adduced by Xanmagomedov (1970:182-3), with the comment that while strictly speaking, from the point of view of normative grammar, they are unacceptable, they are nevertheless widely found in the contemporary language.

On the basis of data from languages with constructions of the kind illustrated here, Comrie(1978:346) concludes that "in such languages...we are justified in using the term 'subject' to refer to S and A, and direct object for P, just as we are in English". The examination of Avar data in this paper supports such a conclusion, which has the corollary that the abandonment of such terms by writers on ergativity in languages like Avar does not lead to a better explanation of the grammatical data. As well as presenting the examples of embedded and coordinated sentences, the discussion here has attempted to show that the first steps away from a consistent model of morphological ergativity in Avar (the dropping of ergative case marking in the A nominal and the beginning of poly-

personal marking on the verb), although connected with the use of participles as the pivot between the main and embedded clauses of complex sentences, are also bound up with the development of personal conjugation in the languages of Daghestan and of consistent marking of the concord between verb and subject in transitive and intransitive constructions.[9]

FOOTNOTES

*I should like to thank all those who have discussed with me data from the various languages of Daghestan, in particular Ğul'dzixan Madieva for her help with the Avar examples. I should also like to thank George Hewitt for his comments on an earlier version of this paper. Remaining errors and inconsistencies are, of course, my own.

1The Avar language, spoken by some 396,000 persons in Northern and Central Daghestan, belongs to the North-Eastern branch of the Ibero-Caucasian group of languages. It has the most speakers, and is administratively and culturally the most important of the indigenous languages of Daghestan.

2In the sentences that follow, class indicators (and in later examples personal indicators as well) are marked off in the transcription by hyphens. In the interlinear glosses each word is treated separately, but the subdivisions marked by hyphens in the sentences themselves do not correspond to the various elements of individual glosses, except in the few instances where such correspondences are relevant to discussion and are therefore explicitly marked.

3Individual source references will not be given in the Avar examples which are taken or adapted partly from grammatical works and partly from literary texts. Most have been checked for native speaker acceptability by G. Madieva.

4One might compare the assumption made in case grammar that all constructions with NP argument can be accounted for by a single "deep" case.

5Other examples from Avar literature are:

(i) dun arac rexi ha-b-ule-w w-ukana
1sgABS moneyABS throwing making be-TENSE
"I was wasting money"

(ii) he-j cara čurule-j j-igo
3sgFemABS dishABS washing be-TENSE
"She is washing the dish"

6The agreement of the first class indicator with the P nominal in this example and in sentence (15) occurs with all verbs having a variable class indicator in their root, and shows the similarity of this construction with standard complex sentences where the link between the main and embedded clause is provided by a participle showing class concord with the nominal arguments of both component structures. A full account of this construction in Avar is given by Saidov (1954). Similarity between the two con-

structions is also shown by the fact that the type represented by sentences (15) and (19) occurs only with compound predicates, one element of which is a participle. Further material on the connection between the functions of participles in complex sentences and development of personal conjugation by means of polypersonal verb forms is presented in Magometov 1976.

[7]A sign that the ergative construction, as well as the class system, is breaking down in Tabassaran is the loss of a distinctive form of the ergative case in the 1st and 2nd persons, as the 3rd person is not (generally) marked by an affix on the verb; compare with sentence (28)

(28a) duɣu d-isnuw baj
3sgERG catchTENSE boyABS
"he caught the boy"

which follows the standard pattern of the ergative construction (marking only of the nominal in the absolutive case, by a class indicator in the verb). The implications of these facts will not be pursued here; it is to be assumed that they represent a kind of split ergativity characteristic of the development of this construction in the languages of the area.

[8]The occurrence of the locative form asda in this sentence is due to a peculiarity of the ergative construction in Avar with certain verbs of physical contact; the contact itself, or its means or instrument, is the nominal in the absolutive case (when it occurs), while the person or thing suffering such contact is treated as an indirect object (Bokarev 1949: 27-32). The reason for the use of such a construction here is that the verbal element in the idiom badib čwaze "to rebuke" (lit. to strike in the face) is such a verb of physical contact.

[9]A further indication that the various constructions illustrated in this paper represent concrete stages in a real historical process is provided by the admittedly sketchy Lak data of Žirkov (1955: 138-9). As well as a "standard" ergative construction (different from the Avar examples only in the fact that in Lak the A nominal, for historical reasons, stands in the genitive case), and a construction where both the A and P nominals are absolutive (as in Avar sentences (15), (19), (22) and (23)), Lak has what Žirkov terms "a contamination of the two constructions":

(39) butɣal b-a-w-xɣunu ∅-ur c*u (∅-ur<*w-ur)
fatherGEN having sold is horseABS (b→w/_C)
"father sold the horse"

where the A nominal is genitive (functionally ergative) and yet is marked on the verb. There is moreover one Avar example of this type known to me, in a 19th century collection of texts (Schiefner 1862: 27):

(40) 1'ababiles keč' ahɣule-w' w-ugo
third ERG songABS singing is
"the third is singing a song"

These examples are discussed in a footnote, rather than in the body of the paper, because of their rather anecdotal nature, which makes it unclear to what extent they may reasonably be invoked to support the main

thesis of this paper.

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THE ORGANIZATION OF A VOICE-NEUTRAL VERB: AN EXAMPLE IN AVAR

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Avar is a Caucasian language[1] of the Northeastern group. It can be subdivided into roughly thirty dialects; this paper deals with Xunza which is taught at school. The Avar verb structure exhibits restrictions and facilities which differ widely from verbal prerogatives in our own Indo-European modern languages. As such, it may be of some interest to examine how it goes about achieving a universal, final end, i.e., how it gets the message across. Avar is an ergative language with a verb that is basically neither transitive nor intransitive, and is also neutral as to person and voice (Tchekhoff 1979: ch.2). Here are examples of how this triple neutrality operates: a) verbs may normally take either one or two NP modifiers indifferently[2]

(1) ḫama b-aČʔ-ula
zero case comes-present tense
donkey
donkey comes.

(2) Či - yas ḫama b-aČʔ-ula
man ergative case as above
donkey comes, man agent, i.e., man brings donkey.

b) the verb itself does not express person, but it bears a prefix[3] that connects it to the zero-marked NP[4]. This prefix expresses the zero NP's referential class as either a man w-, a woman y-, or an unreasonable being[5] b-, be it animal or thing:

(3) dun (man) w-aČʔ-ula or dun y-aČʔ-ula
I come I (woman) come.
I (man) come.

(4) mun w-aČʔ-ula
you (man) come.

(5) dun b-aČʔ-ula
I (child) come.

(6) b-aČʔ-ula
it, unspecified unreasonable, comes. (Contrast (6) with (1)).

c) It is important to note that this agreement between verbal prefix and zero-case marked noun-phrase does not imply a personal conjugation of the verb any more than a voice orientation. In Avar, grammatical voice is irrelevant. There is nothing that would correspond to our own active *vs.* passive dichotomy, *i.e.*, no opposition 'man brings donkey' *vs.* 'donkey is brought by man'. A casual observer may well object that there is a vast difference between bringing and being brought, between eating and being eaten. Certainly the difference in meaning between the two is universal, and no system of communication would allow any ambiguity on that score. But Avar manages to make the distinction clear without using grammatical voice, as we shall see presently. Because linguistic units are abstract, discrete, oppositional (Lyons 1968: 92), active exists only insofar as it may be opposed to non-active[6]. Many languages, like Avar, get along without this grammatical opposition. This does not mean that they do not differentiate between an active and a passive meaning. We must be careful to distinguish the two planes: active and passive meaning on the one hand, and grammatical voice, on the other. An active or passive meaning may derive from the context or from the extra-linguistic situation. It need not resort to any grammatical device. In an Avar minimal sentence[7] - verb + zero-case modifier - neither the NP, because of its zero-case ending, nor the verb, give any indication as to the voice-orientation of the verbal operation. And yet, it is essential to make clear whether the noun acts or is acted upon, for instance in

(7) ḫana kvanala[7]
NP verb
donkey there is food
there is food, donkey involved.

The meaning of the verb root *kvan-* is "to eat" - or, for that matter, "to be eaten" - minus voice. Therefore, its exact value is the common denominator between those two verb forms. Now, a language with an active *vs.* passive opposition, such as English or French, must choose between

one or the other when using a transitive verb. Therefore, kvanala, or another Avar verb which may have an active or passive meaning, will best be translated by a noun, for nouns are voice-neutral in our languages. In the translation, it will also be necessary to turn this noun into a predicate by using a handle, such as 'there is'. Again, a verb like č̌ᶻvaze can stand either for "to kill" or "to die". A more exact counterpart would be "to be involved in death". Thus, since its verbs are neutral as to voice, Avar can use the same sentence in two exact opposite situations. We would express this by two different voices of the same verb. If the observer sees a donkey grazing out at pasture, (7) will need an active translation. If the context or situation indicates donkey as food, (7) will stand for "x eats donkey". This kind of economy obtains in many languages, ergative or not[8]. I have called it verbal openness as to voice (Tchekhoff 1978: 1.12). Because "it goes without saying," these language systems literally allow it to be left unsaid. It follows that these languages rely on the extra-linguistic situation more extensively than do others in which verbal orientation is an inherent grammatical feature of the verb system (whether this orientation is semiotically necessary in a given sentence or not).

However, if the speaker wants to express the fact that 'donkey eats' independant of any specific situation or context, he can put 'donkey' in the ergative case, thus obtaining

(8) ḥam - ica[9] kvanala
donkey ergative there is nourishment
there is nourishment, donkey agent, i.e., donkey eats.

If a verb appears with both its zero-case and ergative-marked NPs, the very presence of the agent NP prevents the verb from exercising its voice openness. Compare (7) above with

(9) č̌i - yas[9] ḥama kvanala
man ergative as above
there is food, donkey involved, man agent.

Thus, we may consider the totality of the two NP's as the universe of discourse (Allwood 1977: 3 foll.) and the ergative-marked agent NP as the positive class of this universe. Then it is only the presence of this ergative-marked NP that makes the zero-marked NP fall into the complementary negative class of non-agents. But the various roles of this zero-marked NP as in (1), (2), and (7) indicate that its value as goal always remains on the level of meaning only. Semantically, the zero-case NP may play the part of a goal or an actor; grammatically, its function is never more explicit than plain, zero-case NP. It is closest to the verb both in space – it precedes the verb – and in form, since the verb agrees with it alone. Thus, the zero-marked NP as well as the voice-neutral, open (Tchekhoff 1978a: 1.12) verb, may be used indifferently to express two opposite notions – actor or goal, active or passive, respectively. These choices are made independently of their grammatical functions:

(10) ebel (woman) y-es-ula
verb
mother ∅ there is sewing, woman involved
there is sewing, mother involved, i.e., mother sews.

(11) λimer b-es-ula
there is sewing, child involved, i.e., child sews.

But also:

(12) su$\underset{\bullet}{\gamma}$ur (unreasonable) b-es-ula
cotton- verb
fabric ∅ there is sewing
there is sewing, cotton involved, i.e., cotton-fabric is sewn.

The same construction prevails whether the zero-NP is actor or acted upon. However, if the two sentences are expanded to include a second modifying NP, there is a basic difference. (10) and (11) will not accept an ergative-marked NP, since the zero-marked NP is also the semantic actor. However, (12) may take one, yielding:

(13) ebel - aλ[9] su$\underset{\bullet}{\gamma}$ur besula
ergative case
mother sews cotton-fabric [10].

Thus the ergative-marked NP is optional; but when it does appear, it is emphasized.

Let us now examine a feature of extra convenience which obtains in because of the voice openness of its verb. In every culture there are referential classes of beings that are more often eaters than eaten, drinkers more often than drinks, etc., etc., in short, beings that are more naturally actors rather than goals of bivalent verbs. For example in Daghestan, as elsewhere, man eats more normally than he gets eaten (the latter possibility would come about only in the case of an acci with a man-eating beast). But, as has been pointed out above, the A language system and speakers' competence retain the same two sentences matrices as in (7) and (8) above if 'man' replaces 'donkey':

(14) či kvanala
man, ∅ ending there is nourishment
there is nourishment, man involved, i.e., usually man eats, which has the same structure as (7) above, and

(15) či - yas kvanala
man ergative mark there is nourishment
there is nourishment, man agent, i.e., man eats, which corresponds to (8) above.

In the case of modifiers which may play the part of both actors an goals of the verb, the existence of these two sentence types, (7) an (8), is justified and necessary. But with a zero case modifier belong ing to the referential actor class, these two sentences would usually redundant unless their opposition were put to some special use. Tha' exactly what does happen: the language transfers the difference of mean ing between (14) and (15), and the emphasis from the semantic actor is the goal of the verb, even if the latter is not expressed. (14) <u>či kvanala</u> will be used to mean "man eats" in general; (15) <u>či-yas kvana</u> "man eats it", where 'it' is a known and specified item, even if it is expressed. Such a syntactic sub-system obtains only in certain conte contrasts involving a fundamental verb + NP that would referentially

more likely to behave as the actor rather than the goal of that verb:

(16) čí heqʔ-ana
the man drank.

(17) čí yas heqʔ-ána
the man drank it.

(18) čí qwana
the man wrote.

(19) čí yas qwana
the man wrote it, etc.

To be sure, there is often a specific syntax for animate beings, and a different one for things (Tchekhoff 1978b). This sub-system in Avar – as obtains in many other languages – draws yet another finer line within the animate category, that of human vs. non-human (Comrie 1976; Tchekhoff 1978a: 4.4).

I shall now deal with a corollary feature of verb structure in Avar. The basic imprecision of a minimal sentence – verb + zero case NP – as to its voice orientation is accompanied by a wealth of details which locate, in space as well as in time, the two morphemes involved. Verb and noun share duties: the verb takes over precision in time, while spatial details and relationships are expressed by the noun. All this takes place with reference to the speaker's (or reported speaker's) own location in time and space at the time of his utterance. But both types of information spring from the verb forms themselves. They alone and nothing else specify the exact location in space (Tchekhoff 1979: 2.8) of the zero-marked NP. These effects are achieved by a large number of complex verb forms whose specific meaningful contents go far beyond anything we know in our own languages.

(20)

dos	čú	bósun	bugo
		unreasonable class marker	
3rd pers. pro.	zero-marked	verb	
ergative case	NP	perfect tense	
he, agent	horse	has brought	

he has brought this horse.

The use of the perfect tense, bosun bugo, expresses the present result

of a past action (Comrie 1976: ch.3); this action is viewed from the present speaker's vantage point, hence its double value. He can actually see the precise goal to which is applied the result of this action, but he has not witnessed the action itself since it happened in the past. Moreover, the zero NP must be expressed; with the perfect, its presence in the sentence is compulsory (Compare to sentences with a simple verb form in which the zero-marked NP itself need not be included). Sentence (20) can be glossed as 'he has bought this here horse, but I wasn't there at the time'. Thus the perfect in Avar implies a specific zero-marked NP and refers to a verbal operation that is known only by hear-say. In Avar, this feature may be included in the meaning of the tense, as it does here, or may bear a special grammatical marker (Tchekhoff 1979: 2.11). It has been called <u>unaxavi</u>, literally "unwitnessed", in and for Georgian (Šanidze 1962), inferential (Comrie op. cit.: 108-110), or non-assertive (Tchekhoff op. cit.). Whatever its name, the same type of distinction is involved and obtains in many languages. In Avar, both the specificity of the zero-marked NP and the non-assertive quality of the verb may change independantly when the verb form changes. Non-assertive is formally and semantically opposed to assertive; the latter is expressed by using a simple past tense, in this case

		unreasonable class prefix		
(21)	dos	čū	b - os - ana	
	he agent	zero case NP	verb root	past
	he has bought a horse in the past.			

Note that the indefinite value of the zero-marked NP stems from the assertive value of the verb. With it, the entire sentence is set in the past: "he bought a horse in the past and I was there at the time".

If the speaker wants to express an assertive statement in the past and make the zero NP definite, he must add a determiner, just as in English: (22) <u>dos heb čū bosana</u> where <u>heb</u> is a demonstrative adjective meaning

"this." If, on the other hand, he wants to express a non-assertive statement with an indefinite goal, he may add to the verb a modal [11] suffix whose meaning corresponds to "information acquired through hearsay," as in (23) dos cu bosan(a)-ila, "they way he bought a horse in the past (but I wasn't there to see it)" (Tchekhoff 1979: 2.30). Both (20) above and (23) are non-assertive; the difference between them is that in (23) the verb bears no resultative meaning. Also in (23) this non-assertiveness has a formal modal mark, whereas in (20) it remains on the level of meaning and derives automatically from the use of the perfect.

Let us consider another instance of the formal difference between assertive and non-assertive. There are two different verb forms to say "he came" (when I was here, which implies that I saw him) vs. "he came" (when I was asleep, which means that I didn't see him). They are respectively:

man class affix

(24) dov vačʔ -ana hanive
ø pronoun verb root past locative + movement
he came here + movement

dun roqʔov v-ukʔ-ara-v mexaλ
ø pronoun locative past pple. instrumental case
I home at having been at the time
he came here at a time when I was at home.

and

(25) dov vačʔun ɣugo hanive
ø pronoun verb, perfect locative + movement
he here + movement

dun λʔižun vukʔarav mexaλ
ø pronoun having fallen past pple.
I asleep having been
he came here when I was asleep. (Hence I can't vouch for the fact that he came , hence a non-assertive perfect in the main clause instead of the assertive past tense in (24).)

In a general way, Avar attaches great importance to visualizing facts or events. When the grammar expresses this referential necessity, it may do so through the verb, as we have just seen, but also through non-verbal formations (Tchekhoff, ibid.: 2.46-47-48). All of the latter refer to

spatial dimensions - with a very concrete meaning of location in space - and relate to the zero-marked NP: [12] [a) body parts. Example (26) relates the seizing of power by a king's sons after their father's death:

class morpheme referring to a thing

(26) padišah - λi - gi λimala-ca kodob - e
NP abstract suffix -ship and zero case NP locative case NP + movement
and kingship the sons agent hand in
b - cs - ana
verb root past
seized
and the sons took in hand the kingship.

'kingship' is the zero-marked NP (its position at the beginning of the sentence followed by the coordinating suffix -gi marks special emphasis). kodobe, 'in hand', refers to the sons' hands, of course, but it bears a class-morpheme, b, because the zero NP, 'kingship', is a thing. [b) there are circa twenty place-names which may take a double construction: either they decline normally according to the usual nominal paradigms in Avar (with locative, -λ and directive, i.e., locative + movement, -e) or they may take a suffix -v, -y, -b, that here again agrees with the NP's referential class. These place-names express places having an inside and an outer part, such as a house, a stable, a village, a forest:

(27) dun č'ʔ-ana roχoλ
pronoun verb past locative without movement
I stayed in the forest
I stayed in the forest.

However, (28) dun č'ʔ-ana roχoλ (NP class prefix) {v / y / b} could be translated by "I (man/woman/child) stayed "forester" ". [c) adverbs and prepositions are indeclinable in Avar, though a few among them do take a compulsary suffixed class-morpheme which always agrees with the zero-class NP. Here again, these formations express the idea of precisely limited space, as for instance, ʔoda {v / y / b}, "on the ground"; askʔu {v / y / b}, "next to"; boλʔo {v / y / b}, "under", etc. No double construction is possible here.

unreasonable

(31) vac-as-da ce -b - e bac ʔ - ana
superessive in front of it came
case /before +
brother movement
it came in front of (or before) the brother.

In English, the preposition relates to the NP whose function it indicates; in Avar, it agrees with the zero NP:

English { in front of / before } the brother

Avar zero NP cebe vacasda

In short, the organization of V + its two modifying NP's in Avar can be summed up as follows:

1) Verbs are voice-neutral and take advantage of this voice openness.

2)A zero-marked NP is consistently silent as to its role as actor or goal of the verb. Avar affords a wealth of detail as to the location in time and space of these NP's. Literally, grammar tells us where the zero-marked NP stands, but never what part it plays in the sentence.

3) As for the ergative-marked NP, it is optional, as has been pointed out above. And yet, when it is present in the sentence, it directs the orientation of all the other participants, including zero NP and verb.

In these roundabout ways, strange to our way of thinking, Avar reinstates the specific dynamics of both actor and goal in a sentence containing a verb and two participants. This, then, is the pattern that corresponds in Avar to our own S-V-O sentence type.

FOOTNOTES

[1]Avar is spoken by roughly 200,00 inhabitants of the Autonomous Republic of Daghestan, U.S.S.R., between the Black and Caspian Seas. The paper presented here, as well as my 1979 book, has been made possible through the generosity and teaching of Professor Georges Charachidze, INLCO, Paris. He has given me access to a very extensive but entirely closed corpus which he himself had gathered in Istanbul from a recent

emigrant informant. This man speaks the Caucasus variety of Avar. All the material dicussed here was taken from this corpus, but I alone am responsible for the views expressed here, and for any mistakes I may have made in my interpretation of this material.

[2]Throughout this paper I shall use three pairs of terms to describe the two main participants of a verbal operation:-

a) zero-marked and ergative case NPs are self-explanatory.

b) the ergative case NP will be said to bear an agent function. There is no symmetrical patient function in an ergative construction (Tchekhoff 1978 a): 1.12).

c) actor and goal (or acted upon) will be used to express the meanings of either of these NPs, whatever their grammatical form.

Avar has a stress accent which usually marks the first syllable of a word. For greater simplicity, and as it has no bearing on the present discussion, I have not included it in my transcription of the examples provided here.

[3]If the verb starts with a consonant, this class prefix has zero expression, as will be seen further in examples (7), (8), and (9) (Tchekhoff 1979: 2.2 foll.). For the opposition between a sign having zero expression and no sign at all, see Tchekhoff 1978: 1.8.

[4]As is well known, in certain other languages of the Caucasus the verb may refer to one or several of the NPs in a sentence. For an example in Ubykh, see Tchekhoff 1978: ch.3.

[5]'unreasonable' includes children, as in (5), the devil, and witches...

[6]This need not be a passive. (Benveniste 1950/1966: 175, and Tchekhoff in preparation).

[7]As has been pointed out above, a minimal sentence in Avar includes a verb and its zero case modifier, since this and only this modifier is represented by a compulsory verbal prefix: # -Ic'ula is incomplete.

With a verb having an initial consonant, as in example (7), the class prefix has zero expression (Tchekhoff 1978a): 1.8).

[8]In many other languages, for instance, Burmese (O'Kell 1969), Huailu, a Melanesian language (La Fontinelle 1976), Tongan, a Polynesian one (Tchekhoff 1979: ch.3), etc., the verb exemplifies the same openness as to voice. Note that certain languages have neutral verbs without this voice-openness. A case in point is Basque: it has a voice-neutral verb, for there is no voice transform, but the zero-marked NP is always the goal of the verb (Tchekhoff 1978 a): 2.11-17). What is sometimes called a passive in Basque is merely an ergative-construed sentence without an agent.

[9]The endings -ica, -yas, and -aλ, express the same ergative case within two formally different but functionally similar nominal paradigms.

[10]This would correspond to French "C'est la mère qui. . ."

[11]See Tchekhoff op cit. 1.19, 2.8 ff. expec. 2.11, 12 and 30.

[12]There are a few "jelled" unproductive nominal terms of kinship such as vac, "brother", yac, "sister", perhaps yas, "girl." But in these cases, although v- and y- may originally have been class prefixes, they have become synchronically an inherent part of the word. Vac cannot be divided into two separate morphemes, v and -ac, anymore than yac or yas can.

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GRAMMATICAL SUBJECT AND THE PROBLEM OF THE ERGATIVE CONSTRUCTION IN LEZGIAN

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Lezgian is a language of Soviet Daghestan (Eastern Caucasus), the main representative of the Lezgian stock, which includes also Rutul, Tabassaran, Tsakhur, Agul, Kryz, Budug, Archi, Khinalug, and Udi.

It is Lezgian surface syntax that will be my concern here, more specifically — Lezgian transitive constructions. By transitive construction, or transitive predication, linguists usually mean a tripartite formation composed of a finite verb denoting causation or perception (roughly equivalent to cut, lift, kill, boil, build, ... or see, hear, understand, etc.) and two nominal phrases denoting, respectively, the subject and the object of the action in question. Typical transitive constructions express such profound and provocative thoughts as

(1) a. 'Ali killed the dog';
b. 'A boy is eating an apple';
c. 'Mother bakes tasty bread';
d. 'The tractor is ploughing the field';
e. 'I see him';
f. 'He understands our question'; etc.

Actually, the notions "transitive verb", "(semantic) subject" and "(semantic) object" are very far from being clear and explicit; cf. Mel'čuk 1979a: 46-52. But here I will not use them in any theoretical way, so there is no risk of dangerous confusion.(In this connection, see also Wilbur 1977.)

All the sentences in Lezgian used to render the meanings of (1a)-(1d) type[1] have the following form:

(2) NP^1_{erg} NP^2_{nom} V

Causer Causee Action

The nominal phrase NP^1, which denotes the causer and thus corresponds to the grammatical subject of active verbs in English, is obligatorily marked by a specific case in -di, used exclusively in this role. It is natural to call this case e r g a t i v e, which is normally done.

The nominal phrase NP^2 denotes the thing changing its state (under the impact of causation; but see below, p.238); it corresponds to the direct object in English. This phrase is marked by the case with a zero ending, which is the citation form. I will call this form n o m i n a t i v e case. (I feel that the name "nominative" should be reserved—in any language—for the most unmarked case one of whose functions is just to NAME (Lat. nominare) objects. It is the only case that is normally used out of any syntactic context: as a label, in enumerations, etc. Many, however, choose to call such a form a b s o l u t i v e—especially when discussing a non-Indo-European language. But I do not see sufficient reasons for that; cf. also Catford 1976: 47, fn.1.)

Consider, for instance, (3):

(3) Ali-di kic qe-na
ALI-ERG dog-NOM kill-AOR
'Ali killed the dog'.[2]

Note that in Lezgian the nominative may fulfill some further syntactic roles as well; among others, it marks the actor of an intransitive action or the subject of a state:

(4) a. Ali Šeher-diz ʻe-na
Ali-NOM town-DAT go-AOR
'Ali went to town'.

b. Ali ksa-nva
Ali-NOM sleep-RESULT
'Ali is sleeping'.

Thus, the object of a transitive Lezgian verb and the subject of an intransitive one are case-marked similarly, namely by the nominative. At the same time, the subject of a transitive verb features a specific case-mark: the ergative. Therefore, the Lezgian construction of the type (2), exemplified by sentences of the type (3), is generally taken to be ergative. More than that: for some decades, the Lezgian construction under consideration has been considered one of the most typical instances of the ergative construction.

However, in my opinion this analysis, natural though it may seem at first glance, is wrong. Let me bluntly formulate my view of what really happens in

Lezgian (the rest of this paper is devoted to more fully substantiate it).

I think that if the ergative construction is a specific SYNTACTIC phenomenon, then Lezgian has no ergative construction at all. The peculiarity of the Lezgian sentences of type (3), when compared to, e.g., their English equivalents, resides not in syntax—but rather is to be found on a much deeper level, namely, in their SEMANTICS. In such Lezgian sentences, all the verbs denote states, not genuine actions; action-verbs simply do not exist in the language. Thus instead of 'kill' Lezgian actually says 'die (maybe from somebody's hand)'; 'eat' is in Lezgian 'disappear swallowed', 'bake'— 'change [= become different] under the action of heat', and 'plough'— 'undergo ploughing'. Accordingly, the agent phrase in the ergative is— from the syntactic viewpoint— an agentive complement (or a circumstancial), by no means the grammatical subject. Yet what is declared the direct object in sentences like (3), i.e., the nominal phrase in the nominative, is the grammatical subject. Semantically, <u>kiç</u> 'the dog' in (3) denotes the thing being in the state of dying, so that a closer English rendering of (3) would be (3'):

(3') 'Caused-by-Ali the - dog died'.
<u>Ali-di</u> <u>kiç</u> <u>gena</u>.

If this is the case, then (3) exhibits a quite common intransitive construction, with no syntactic specificity at all—and the wind is taken out of the sails of those who would call it an ergative construction.

The above conclusion has been prompted by an examination of the data presented in the books of M.M. Gadžiev (1954 and 1963), which offer a great number of well-picked examples and clear explanations thereof. (However, most of the analyses and solutions put forth by M.M. Gadžiev himself run counter to what I am saying on the basis of his data.) Since I do not know Lezgian at all and proceed only from the facts found in the said books, many of my specific statements about the language may turn out wrong. Nevertheless, even if this should be the case my reasonings seem to be useful: they lay bare the structure of logical relations between some important linguistic phenomena (which, if absent from Lezgian, are

still possible in human languages). All the assertions in this paper are to be construed as implications: 'If the facts are such as presented, then the following holds'. And the truth of the implications seems to me more important than the truth of their premisses.

I will start by proving (I) that the agent NP in Lezgian sentences like (3) is by no means the grammatical subject which is represented by the "semantic object" NP; then (II) I will argue against the idea that (3) is a specimen of an ergative construction.

I.

I will capitalize on the following four assumptions about what a grammatical subject is:

(1) The Grammatical Subject (GS) is basically a SURFACE-SYNTACTIC item. To define GS, neither purely semantic nor purely morphological terms should be used.

On the one hand, it is obvious that a GS may play different semantic roles (Actor; Source; Location - The box contains six bottles; Object - in the passive; Time - 3 o'clock has seen them at Penn Station; etc.) while a given semantic role may be fulfilled by different syntactic items (cf. the Actor role in the following: McCawley has described..., described by McCawley, McCawley's description, description of McCawley or even McCawleyan description).

On the other hand, the same syntactic item may have different morphological markings (say, by different grammatical cases or by different word order) — and the same morphological device may be used to indicate some different syntactic items. Take, e.g., Georgian: here, the grammatical subject may be marked by the nominative, the ergative or the dative (depending on the aspect-tense form of the verb, see Aronson 1970) while the nominative may also mark the direct object.

The GS is to be defined in terms of (surface-)syntactic properties, or, to be more precise, in terms of the following three types of properties centered around the (surface-)syntactic level of utterance representation (cf. Keenan 1976):

— surface-syntactic properties sensu stricto, i.e. BEHAVIORAL properties

observed in surface-syntactic representations (deletability, relativizability, conjoinability, control of reflexivization, etc.);

- morpho-syntactic CODING properties, i.e. properties describable in terms of relationships between the syntactic and the morphological representations (what agrees with what, what is governed by what, etc.; in short, what syntactic items impose what morphological dependencies);

- semantico-syntactic INTERPRETATION properties, i.e. properties concerning relationships between the syntactic and the semantic representations (what influences or conditions and in what way the semantic interpretation of what).

In some languages, the coding properties of GSs may be irrelevant or even non-existent as is the case of Lezgian (which completely lacks any number-person agreement in the main verb). However, the behavioral and interpretation properties are presumed to be valid in any language. (Cf. the insightful analysis by Cole et al. 1978).

(ii) Grammatical Subject is a nominal phrase that happens to be SYNTACTICALLY PRIVILEGED in the language examined. That is, a GS is an NP characterized by a specific set of surface-syntactic properties which it shares fully with no other NP in the language. To define GS in language L, we must look for such syntactic properties of NPs in L that set off exactly one type of NP, this type being GS.

(iii) The syntactically privileged status of NPs is LANGUAGE-SPECIFIC.

Thus a syntactic property relevant in one language may turn out non-existent or immaterial in another. E.g., controlling the agreement form of the main verb is a mark of privileged status in Russian or Italian - while it does not appear at all in Lezgian or Japanese (where the main verb shows no mark of agreement with any NP). The ability of being topicalized may be a distinction bestowed upon a unique syntactic item in L_1 but quite a common occurrence for any NP in L_2; etc.

This means that the definition of GS which is UNIVERSAL on an abstract level is IDIOSYNCRATIC on a specific level: GS is an NP syntactically privileged in L (= universal) - but what 'syntactically privileged' means can be answered solely

with respect to L (= idiosyncratic).

(iv) The GS in language L should be defined BY INDUCTION.

a) I n d u c t i o n b a s i s. First, we take the most current and simplest type of sentences in L: "basic" sentences, consisting of a semantically one-place (= monovalent) verb in the indicative mood and a noun phrase, possibly a proper noun. Thus it will be in all probability a sentence comprising two full word-forms (and maybe an auxiliary): something like Mary died, John is-sleeping, Mother stands-up, etc. The only nominal form (or phrase) in such "basic" sentences of L is taken to be the grammatical subject.

b) I n d u c t i o n s t e p. Second, all other sentence types in L are considered. A set P of surface-syntactic properties which characterize syntactically privileged items in L is established; these properties should obviously be present in the GS of basic sentences. Then, for each type of sentence under analysis, each nominal susceptible of being recognized as a GS is compared to the GS of basic sentences according to the set P. The nominal which is more similar to the "basic" GS than any other nominal (i.e. shares with the "basic" GS more properties out of P and shares them to a greater extent) is taken to be the grammatical subject in its turn.

Thus, a GS is either a "basic" GS or any other nominal that is most similar to the "basic" GS from the viewpoint of properties P.

The above approach to the notion of grammatical subject has been developped over the last five years (Mel'čuk-Savvina 1974, Mel'čuk-Savvina 1978: 29-31, Mel'čuk 1979a: 33-37 and is closely related to the well-known proposal by E. Keenan (1976); cf. also Van Valin (1977).

After these preliminaries, let me get down to business, namely:

A. To state three surface-syntactic properties of Lezgian that point out NP_{nom} (kic 'dog' in (3)) as GS.

B. To mention the absence of some possible counterevidence.

C. To analyze and dismiss five counterarguments generally put forth against "NP_{nom} = GS" in Lezgian.

A.

Let us consider a number of "basic" sentences in Lezgian:

(5) a. Ali aluq-na
Ali-NOM fall-AOR
'Ali fell'.

b. Ali [illegible]ta-na
Ali-NOM come-AOR
'Ali came (back)'.

c. Ali ksa-nva
Ali-NOM sleep-RESULT
'Ali is sleeping'.

d. Ali elq*ez-va
Ali-NOM turn-PRES
'Ali turns around'.

e. Ali kis-na
Ali-NOM be.silent-AOR
'Ali became silent'.

In all these examples, the only nominal—Ali (that is, NP_{nom})—is the grammatical subject. Thus the basis for our inductive reasoning is set. Now we have to look for some surface-syntactic properties characterizing the privileged status of a nominal phrase in Lezgian. I know of three such properties: deletability, gapping-collapsability, and agreement of the nominalized participle.

1. DELETABILITY. Deletability (called also dispensability; see Van Valin 1977: 690) is a powerful and reliable test for the privileged status of any NP: if there is in the language only one type of NP which cannot be omitted from the surface-syntactic structure of the sentence without affecting the grammaticality of the latter or its independence from the linguistic context, then this NP is syntactically privileged. Note that in English it is GS (and only GS) that possesses the property of non-deletability among all types of NP. To put it differently, if a grammatical sentence in English includes only one NP it must be the GS. (Imperative sentences like Read this book! etc. do not contradict the last state-

ment. Based on such cases as Wash yourself/yourselves!, Everybody stand up! and the like, a GS — you — is postulated in their surface-syntactic structures, where this GS cannot be omitted. It does not appear in the actual sentence following some rules of ellipsis. As for pseudo-imperative sentences of the type Fuck you, bastard!, these are explained away in the penetrating essay by Quang 1971.)

More accurately, the property of deletability may be formulated as follows:

(6) A syntactic item (= a phrase) A is said to be d e l e t a b l e i n l a n g u a g e L if and only if, for each sentence S of L^3, the following holds: if at least one phrase can be deleted from the surface-syntactic structure of S without affecting both the grammaticality of S and the degree of its independence from the broader linguistic context, then A can be deleted from the surface-syntactic structure of S.

It should be emphasized that what is meant by (6) is deletability in surface-syntactic structures, and not in actual sentences.

Now, it so happens in Lezgian that NP_{erg}, or the agent NP(i.e., the presumed grammatical subject), can always be omitted from the surface-syntactic structure of any sentence salva correctione independentiaque. If, for instance, we omit Alidi from (3) we get (3"), which is perfectly grammatical and context-independent:

(3") Kic ɣena 'The-dog died'.

There are a great number of examples like (3) vs. (3"):

(7) a. Ali-di gete ɣa-na
Ali-ERG pot-NOM break-AOR
'Ali broke the pot'.

b. Gete ɣa-na
'The-pot broke'.

(8) a. Ali-di zi perem q°azun-na
Ali-ERG my shirt-NOM tear-AOR
'Ali tore my shirt'.

b. Zi perem q°azun-na
'My shirt got-torn'.

M. Gadžiev (1954:99-100) says that in (3)-(3") and (7)-(8) we find a restricted class of verbs called l a b i l e which are polysemous and possess (at least) a transitive and an intransitive sense. His examples include ɣin '(to) kill'— '(to) die', ɣun '(to) break [trans.] '— '(to) break [intrans.] ', kʷun '(to) burn

[trans.] '— '(to) burn [intrans.]', etc. (see also below, page 239).

However, on the next page (100-101) we read that the agent phrase NP_{erg} may be omitted in EVERY Lezgian sentence, the result being called by Gadžiev 'indefinite-human-agent construction':

(9) a. Hažbuzdajar gatfariz ca-da
corn-NOM in.spring sow-FUT
'Corn is sown [= They normally sow corn] in spring'.

b. Vilikdi č̣il türez-daldi ca-daj, gila
earlier soil-NOM wooden.plough-INSTR plough.IMPF III now

küten-daldi caz-va
metal.plough-INSTR plough-PRES

'Earlier soil was ploughed with a wooden plough, now it is ploughed with a metal plough'.

c. Panbag-dikaj parča xra-da
cotton-SUBEL cloth-NOM weave-FUT

'Cloth is woven out of cotton'.

True, in (9) a human agent is necessarily understood but this has nothing to do with the construction as such, i.e. with syntax: the human agent is imposed by the meaning of verbs 'sow', 'plough', or 'weave'. Let us take (10):

(10) a. Žive-di reg basmiš-na
snow-ERG road-NOM block-AOR
'The snow blocked the road'

and omit NP_{erg}:

b. Reg basmiš-na

means 'The road got/became blocked'—not necessarily by people: it may have been stones, wind-fallen trees, snow, snow-storm, flood, people, or even animals.

Similary,

(11) a. Ṭar jarx-ar-na
tree-NOM fall-CAUS-AOR
'The tree toppled/was knocked down'

does not imply a human agent: the tree might have been knocked down by a bear, a stream, or just strong wind:

b. Gar-u ṭar jarx-ar-na
wind-ERG tree-NOM fall-CAUS-AOR
'The wind knocked down the tree'.

The situation is radically different, e.g., with Russian indefinite-human-agent constructions featuring a zero lexeme in the capacity of the grammatical subject:

(12) a. Dorog-u zasypal-i
road-ACC blocked-3 PL
means that it was by people only (while

b. Dorog-u zasypal-o
road-ACC blocked-3 SG.NEUT
unmistakably indicates a 'natural' agent, like wind, snow, etc.;

c. Dorog-a byl-a zasypana
road-NOM was-3 SG.FEM block-PAST.PASS.PART-SG.FEM
is vague with respect to the agent: it could have been people, natural forces, or animals). For more details about type (12) constructions see Mel'čuk 1979b.

Let me summarize briefly what has been said so far.

Any Lezgian sentence having the form

(13) 'X' 'Y' 'P'
NP^1_{erg} NP^2_{nom} V
means

(13') 'X performs such actions that they cause that Y is in the state P'.

Thus, 'Ali kills the dog' = 'Ali performs such actions that they cause that the dog dies'; 'Ali tears my shirt' = 'Ali performs such actions that they cause that my shirt becomes torn'; etc.

In the surface-syntactic structure of any sentence of (13) type NP^1_{erg} denoting 'X' may be omitted without affecting its grammaticality or the degree of its dependence upon the preceding context. The result

(14) 'Y' 'P'
NP^2_{nom} V

means

(14') 'Y is in the state P'.

If the above is correct, then we face the following dilemma.

— Either we say that ALL Lezgian verbs admitting an agent phrase NP_{erg} are labile, i.e. (at least) two-way ambiguous, with a transitive and an intransitive sense.

— Or we prefer to consider ALL Lezgian verbs non-ambiguous and therefore only intransitive. Then all the Lezgian verbs denote exclusively states or processes, never actions; and the semantic component '...perform(s) such actions that they cause that...' present in the sentences of the (13) type is imparted by the ergative case of NP^1_{erg}—rather than by the verb.

Economy of description obviously prompts us to adopt the second alternative. In this case, all the verbs cited by Gadžiev as labiles turn out to be intransitive: qin means only 'die' (but never 'kill'), xun only 'get broken', kʜun only 'be consumed by fire', etc.[4]

Thus the test of deletability indicates rather the nominative NP as the grammatical subject (with all kinds of verbs) in Lezgian: the ergative NP is deletable while the nominative NP is not, which I take to be a sign of a privileged status of NP_{nom} with respect to NP_{erg}. As for the "basic" GSs in sentences (5), i.e. all the occurrences of Ali, they are obviously not deletable.

Remark 1. When I say that NP_{nom} is non-deletable in Lezgian, I by no means imply that a NP_{nom} can never be deleted from the surface-syntactic structure of a Lezgian sentence. It can be sometimes, but either such a deletion entails the sentence's incompleteness, as in (15b), or if it does not, then it is only possible under highly specific semantic circumstances that ensure the sentence's autonomy, as in (16b) and (18b), but not in (17b) and (19b):

(15) a. Gada-di ktab qʜaču-na
boy-ERG book-NOM buy-AOR
'The boy bought a book'.

b. Gada-di qʜaču-na
'The boy bought' [something which must have been mentioned before];

(15b), although grammatical in Lezgian, is not an autonomous sentence: it is strongly context-dependent.

(16) a. Raq-ini am k$_w$uz-va
sun-ERG he-NOM burn-PRES
'The sun is burning him'.

b. Raq-ini k$_w$uz-va
'The sun is burning'.

(16b) is a fully autonomous and grammatical sentence, while (17b) is not:

(17) a. Buba-di karasar k$_w$uz-va
father-ERG wood-NOM burn-PRES
'Father is burning wood'.

b. *Buba-di k$_w$uz-va
'Father is burning'.

The same thing happens with the next pair of examples:

(18) a. Evel aždahan-di q$_w$ŭr ja-na
first dragon-ERG hare-NOM strike-AOR
'At first, the dragon struck the hare'.

b. Evel aždahan-di ja-na
'The dragon struck first'.

(19) a. Evel aždahan-di q$_w$ŭr gat-ana
'At first, the dragon beat up the hare'.

b. *Evel aždahan-di gat-ana
'At first, the dragon beat up'.

Remark 2. Comparing NP_{nom} to NP_{erg}, I take into consideration only those NP_{nom}s that function as actants of a verbal form. All other uses of a NP_{nom} are ignored here (such as in the role of a predicative complement: student ja 'is (a) student'; of an apposition: pahlivan Mahamed 'the hero Mahamed'; of an apostrophe; of the nominal part in a compound verb: perevod ijizva 'translation makes' = 'translates', cf. Ada [erg] i stat'ja [nom] perevod [nom] ijizva 'He translates this article'; of an attribute: karas tur, lit. 'wood spoon'; etc.). Cf. also Remark 3, on page 246.

2. GAPPING-COLLAPSABILITY. This property is often referred to as coordination possibility (see, e.g., Comrie 1977: 32-33), conjoinability (Mel'čuk 1979a: 38), or coreferential deletion across coordinate conjunctions (Van Valin 1977:691), but the above newly-coined term seems now preferrable to me. The reason will become clearer in the course of the subsequent account.

To quote Gadžiev (1954:60): "Several main verbs may be conjoined in Lezgian only if all of them are either transitive or intransitive" — and, let us add, if all of them refer to the same actor or perceiver. That is, meanings like in (20):

(20) a. 'The boy returned and took the book'.
b. 'The boy took the book and returned'.

cannot be expressed in Lezgian by (20'):

(20') a. *Gada / boy-NOM χtana / returned va / and ktab / book-NOM q̣ačuna / took

b. *Gada-di / boy-ERG ktab / book-NOM q̣ačuna / took va / and χtana / returned

Both sentences are bad because of the second conjunct, starting with va 'and'. The preceding part is perfectly grammatical.

There are only two ways to express (20a) or (20b) in Lezgian: either by conjoining two complete sentences rather than two tensed verbs, which means using two occurrences of gada 'boy' (with the second one pronominalized), see (21); or by replacing the first tensed verb with a gerund, in our case, with a past-tense gerund, see (22). Thus, instead of 'The boy returned and took the book' Lezgian actually says 'The boy returned and he took the book' or 'The boy, having returned, took the book'. See examples:

(21) a. Gada / boy-NOM χta-na, / return-AOR va a-a / and he-ERG ktab / book-NOM q̣aču-na / take-AOR
'The boy$_i$ returned, and he$_i$ took the book'.

b. Gada-di / boy-ERG ktab / book-NOM q̣aču-na, / take-AOR va / and am / he-NOM χta-na / return-AOR
'The boy$_i$ took the book, and he$_i$ returned'.

(22) a. Gada-di / boy-ERG χta-na / return-PAST.GER ktab / book-NOM q̣aču-na / take-AOR
'The boy, having returned, took the book'.

b. Gada / boy-NOM ktab / book-NOM q̣aču-na / take-PAST.GER χta-na / return-AOR
The boy, having taken the book, returned'.

Such are the facts. What now is their bearing upon the problem of the grammatical subject in Lezgian?

First of all, I will restate Gadžiev's formulation in more general and rigorous terms.

Let there be, in a given language, a surface-syntactic configuration

(23) $A \xleftarrow{r_1} X$ <u>and</u> $A \xleftarrow{r_2} Y$,

where the two <u>A</u>s stand for two lexically and referentially identical nominal phrases[5], and $\underline{r}_1$ and $\underline{r}_2$ are two surface-syntactic relations whose identity is at stake; in other words, we'd like to know whether $\underline{r}_1 = \underline{r}_2$ or $\underline{r}_1 \neq \underline{r}_2$.

Now, the operation transforming (23) into (23'):

(23') $A \xleftarrow{r_1} X$ <u>and</u> Y,

(23') being semantically (roughly) equivalent to (23), is called c o n j u n c t i o n r e d u c t i o n, or g a p p i n g. If, in the language in question, gapping is applicable to all instances of type (23) construction, the latter is said to be c o n j u n c t i o n - r e d u c i b l e, or g a p p a b l e; phrases X and Y are c o n j o i n a b l e; and both occurrences of <u>A</u> which are c o l l a p s e d into one, under transformation (23) ⇒ (23') are called c o l l a p s a b l e u n d e r g a p p i n g, or g a p p i n g - c o l l a p s a b l e.

The following principle seems to hold:

(24) If, in language L, two occurrences of the phrase <u>A</u> fulfilling two presumably different surface-syntactic roles $\underline{r}_1$ and $\underline{r}_2$, i.e. $\underline{r}_1$ (<u>A</u>) and $\underline{r}_2$(<u>A</u>), are gapping-collapsable, this constitutes an argument in favor of the identity of $\underline{r}_1$ and $\underline{r}_2$. If, on the contrary, $\underline{r}_1$(<u>A</u>) and $\underline{r}_2$(<u>A</u>) are not gapping-collapsable, this testifies against the identity of $\underline{r}_1$ and $\underline{r}_2$.

It is obvious that (24) is no more than a heuristic principle; it should not be applied unvarily, like a precise criterion. $\underline{r}_1$ (<u>A</u>) and $\underline{r}_2$ (<u>A</u>) may be gapping-collapsable even without $\underline{r}_1 = \underline{r}_2$: suppose, for instance, that a zero pronoun replace the second occurrence of <u>A</u>. On the other hand, $\underline{r}_1$ (<u>A</u>) and $\underline{r}_2$ (<u>A</u>) may not be collapsable in spite of $\underline{r}_1 = \underline{r}_2$, in particular, if the language does not admit collapsing two syntactic items which must have different morphological markings; such is the case of Russian[6].

Nevertheless, principle (24) may be used, if cautiously. Applied to Lezgian, it provides an argument against the identity of surface-syntactic roles of NP_{erg} (= agent phrase with a transitive verb) and NP_{nom} (= actor of an intransitive verb): they are not gapping-collapsable in Lezgian. Let it be emphasized that in languages where NP_{erg} actually is the grammatical subject both nominative and ergative NPs are readily gapping-collapsable; see examples from Georgian and Dargwa:

(25) a. Mama-m gaigon-a čemi γma da adg-a
father-ERG hear-AOR my voice-NOM and stand.up-AOR
'Father heard my voice and stood up'.

b. Mama adg-a da gaigon-a čemi γma
father-NOM stand.up-AOR and hear-AOR my voice-NOM
'Father stood up and heard my voice'.

(26) a. Daud-li Leila lävriruli (saj) va murtalra il-ičil
Daud-ERG Leila-NOM caressing (is) and always she-COMIT
kajili saj
sitting is
'Daud caresses Leila (a lot) and always is sitting with her'.

b. Daud Leila-čil murtalra kajili (saj) va il
Daud-NOM Leila-COMIT always sitting (is) and she-NOM
lävriruli saj
caressing is
'Daud is always sitting with Leila and caresses her a lot'.

The same thing happens in Čečen (Jakovlev 1940: 165-166).

GSs in different grammatical cases (nominative and pathetive) are also gapping-collapsable in Dyirbal (Mel'čuk 1979a: 38-40):

(27) a. ŋada bani-ŋu ba-ŋgu-n ḍugumbi-ru balga-n
I-NOM come-PAST the-INSTR-II woman-INSTR hit-PAST
'I came, and the woman hit me' (lit. 'I came and was-hit by the woman').

b. ŋay-guna ba-ŋgu-n ḍugumbi-ru balga-n bani-ŋu
I-PATH the-INSTR-II woman-INSTR hit-PAST come-PAST
'The woman hit me, and I came' (lit. 'I was-hit by the woman and came').

Thus chances are that in Lezgian NP_{nom} $(V_{(itr)})$ and $NP_{erg}(V_{(tr)})$ fulfill different surface-syntactic roles. But since NP_{nom} $(V_{(itr)})$ — e.g., in (4) — is

the GS of its verb beyond any doubt (in particular, it is not omissible), this means that NP_{erg} in (2) is not; q.e.d.

However, this is only the first half of the proof — it remains to be seen whether the gapping test favors the surface-syntactic identity of $NP_{nom}(V_{(itr)})$ and $NP_{nom}(V_{(tr)})$. To do so, it is sufficent to try to collapse them under gapping. Let us take (28):

(28) a. Buba-di Ahmed gzaf gat-ana
Father-ERG Ahmed-NOM much beat-AOR
'Father beat the hell out of Ahmed'.

b. Ahmed q-fe-na
Ahmed-NOM away-go-AOR
'Ahmed went away'.

These two sentences may be conjoined to produce

(29) Buba-di Ahmed gzaf gat-ana va q-fe-na
'Father beat the hell out of Ahmed$_i$ and he$_i$ went away',

or more literally, 'From-the-father Ahmed got a tremendous beating and went away'. (29) seems to suggest that the NP_{nom} that fills a valence of a bivalent (= "transitive") verb plays the same surface-syntactic role as the NP_{nom} with a monovalent (= "intransitive") verb; that completes our proof.

But, unfortunately, there is a hitch to my conclusion. Sentence (29) has been concocted by me, and I could not check it with an informant — or find a similar example in both books by Gadžiev[7]. If sentences of the (29) type turn out to be ungrammatical in Lezgian, then the collapsability argument is seriously crippled but still not killed, since it remains valid against the claim that NP_{erg} is the grammatical subject. I had better not dwell on many difficulties that are likely to arise in connection with the ungrammaticality of (29). Let us hope that it is OK.

3. AGREEMENT. As was said above, Lezgian knows almost no agreement. The only vestiges of the latter can be found in the sentences with a copula and a nominalized participle in the role of the predicative complement. This participle may agree in number with the NP_{nom}, the agreement being obligatory if the NP_{nom}

is animate and optional otherwise. But the participle in the complement position never agrees with the NP_{erg}. See examples:

(30) a. Z-az i t̥ar-ar naq kut-ur-bur xiz
I-DAT this tree-PL-NOM yesterday plant-PART-PL-NOM as

akaz-va
seem-PRES

'These trees seem to me as (if they had been) planted yesterday'.

b. Zun qsan k̥el-aj-di ja
I-NOM well learn-PART-SG-NOM be.PRES

'I am a well-educated person'.

c: Čun qsan k̥el-aj-bur ⟨*k̥el-aj-di⟩ ja
we-NOM well learn-PART-PL-NOM be.PRES

'We are well-educated people'.

d. Z-a sa ktab k̥el-aj-di ⟨*k̥el-aj-bur⟩ ja
I-ERG one book-NOM read-PART-SG-NOM be.PRES

'I have read a book' (lit. 'A book has-been-read by-me').

e. Z-a gzaf ktab-ar k̥el-aj-di/k̥el-aj-bur ja
I-ERG many book-PL-NOM read-PART-SG/PL-NOM be.PRES

'I have read many books' ('Many books has/have-been-read by me').

f. Zun sa ktab /gzaf ktab-ar k̥el-aj-di
I-NOM one book-NOM/many book-PL-NOM read-PART-SG-NOM

⟨*k̥el-aj-bur⟩ ja
read-PART-PL-NOM be.PRES

'I am the person who read a book/many books'.

g. Čn-a sa ktab k̥el-aj-di ⟨*k̥el-aj-bur⟩ ja
we-ERG one book-NOM read-PART-SG-NOM read-PART-PL-NOM be.PRES

'We have read a book' ('A book has been read by us').

h. Čn-a gzaf ktab-ar k̥el-aj-di/k̥el-aj-bur ja
'We have read many books' ('Many books has/have been read by us').

i. Čun sa ktab/gzaf ktabar k̥el-aj-bur ⟨*k̥el-aj-di⟩ ja

'We are those who read a book/many books'.

All these sentences show quite clearly that from the viewpoint of the only agreement relationship that obtains in Lezgian, $NP_{nom}(V_{(tr)})$ and $NP_{nom}(V_{(itr)})$ are treated as isofunctional items, both triggering the number agreement of the

predicative complement; NP_{erg}, however, is excluded from this.

Remark 3. The only wrinkle to this excellently organized set of data seems to appear in examples (30f) and (30i), where we observe TWO noun phrases in the nominative: the GS zun 'I' or čun 'we' and the other one-ktab/ktabar 'book(s)'. But actually, there is no problem here: the second NP_{nom} is, so to speak, the "retained" GS of the participle. As Gadžiev points out (1963: 13-16, 68-69), in Lezgian all verbal nominalizations---the masdar and the participles---keep the full valence of the source verb so that what had been the GS of the verb may still stand in the nominative. (Cf. the insightful analysis of a similar phenomenon in Arabic by Comrie 1976: 194-96.) Here are three more examples to illustrate it:

(31) a. Čun/zun fe-ji-bur kolxoz-din ba -lar tir
we-NOM/I-NOM go-PART-PL-NOM kolkhoz-GEN orchard-PL be-IMPERF
'The place we/I went was kolkhoz's orchard'.

More literally, the sentence translates as 'Our/my goings were kolkhoz's orchards', but with we/I as secondary subjects (of 'going').

b. Oficer-di vič front-diq f-irva-j-di qil-in
officer-ERG he-NOM front-TRANSES go-PRES-PART-SG-NOM head-GEN

išarad-aldi qal-ur-na
nod-INSTR show-CAUS-AOR

'With a nod, the officer showed that he was going to the front'.

Literally, it would be 'The-officer showed with a nod of head he going to-front'.

c. Zi murad vun han-iz f-in ja
my wish-NOM you-NOM there-DAT go-MASD-NOM be.PRES

'I want you to go there',

or, more literally, 'My wish is you going there'.

After all those deliberations, I am in a position to make the following statement, which will then be substantiated in the rest of the paper: deletability, gapping and agreement, all three being purely syntactic properties, indicate NP_{nom} as the GS in ALL Lezgian sentences; NP_{erg} is then relegated to the status of an agent complement (or maybe even a circumstantial)[8].

B.

An outstanding peculiarity of Lezgian is the complete absence of any voice system; there is not even the slightest trace of something smelling of voice. However, languages which possess "normal" transitive verbs and tripartite constructions GS + V+O(irect)O(bject), as a rule, feature at least two voices — active and passive. The voice distinctions may be restricted to participles but in a majority of instances, transitivity of verbs in a language entails the existence of the voice category. At the very least, we may find a degenerate, "voice-like" category, as in Dargwa, where all transitive verbs admit two types of subject-verb-object construction:

(32) a. Dudeš-li gazet b-učuli sa-j
father-ERG newspaper-NOM THING-reading is-MASC
'Father is reading a newspaper'.

b. Neš-li gazet b-učuli sa-ri
mother-ERG newspaper-NOM THING-reading is-FEM
'Mother is reading a newspaper'.

Here, NP_{erg} (dudešli and nešli) is the GS, and the auxiliary verb agrees with it in class, while NP_{nom} (gazet) is the direct object that conditions the agreement of the lexical part of the compound verb form (the prefix b-); the verb is transitive. But in the nearly synonymous (33) the grammatical structure is different:

(33) a. Dudeš gazet-li (w)-učuli sa-j
father-NOM newspaper-ERG MASC-reading is-MASC

b. Neš gazet-li r-učuli sa-ri
mother-NOM newspaper-ERG FEM-reading is-FEM

The verb is intransitive; both its parts agree in class with the NP_{nom}, which is the GS. The NP_{erg} becomes an indirect object, a chômeur (which fills, however, the same object valence as in (32)). The communicative emphasis in (33) is different: it is the action itself that is in focus. (33) could be roughly translated as 'Father ⟨mother⟩ is engaged in some reading, which involves a newspaper'.

I do not think that the difference between (32) and (33) is amenable to just voice distinctions. But these examples clearly show a possible way in Dargwa to manipulate actants of transitive verbs.

By and large, transitive verbs develop a kind of interplay among their surface-syntactic actants, the latter being demoted or promoted in syntactic rank, etc. Nothing similar happens in Lezgian.

True, the absence of evidence is not reliable evidence. And yet the total lack of voice or voice-like distinctions in Lezgian strengthens the view that all Lezgian verbs are essentially intransitive and therefore all NP_{nom} are GSs, both with $V_{(itr)}$ and presumed $V_{(tr)}$. The lack of voice would automatically follow from the intransitivity of all Lezgian verbs; otherwise I do not see any feasible explanation for that fact.

C.

Now I will analyse five counterarguments to the solution "NP_{nom} = GS, NP_{erg} = CO^{agent}" in Lezgian.

1. If my analysis (3') of sentences of the type (3) is correct, then the semantic component '... performs such actions that they cause that...', which is so important for the meaning of the whole sentence, is carried not by the verb but by the ergative case of the agent phrase. Is it justified to load upon an apparently syntactic case such a heavy semantic cargo?

The facts are that normally all grammatical cases of a language can be divided into two subclasses (obviously, with some intermediate phenomena hard to classify): 1) c o n c r e t e, or s e m a n t i c, cases, which denote different locations (with meanings like 'on', 'over', 'under', 'along', 'into', ...), comparison, possession, etc.; and 2) a b s t r a c t, or s y n t a c t i c, cases, which mark surface-syntactic relations (mostly between the verb and its nominal dependents) and tend to carry no meaning at all. E.g., Russian or German cases are all mainly syntactic while in Hungarian or Finnish we find also (along with the

syntactic cases like nominative and accusative) a number of semantic cases (like inessive, illative, adessive, allative, etc.).

Now, the ergative in Lezgian must be classified as an abstract, syntactic case — even in my analysis, where it marks the agent role (it is more so in the traditional analysis which considers the ergative as the mark of the GS). So it may seem contrary to the spirit of Lezgian to hang the action-causative meaning onto an abstract case.

However, to use abstract cases as carriers for considerable semantic cargoes is very typical of Lezgian. Here are three obvious instances of this.

(i) In all sentences of type (3) the ergative may be replaced by the ablative, with the result that the sentence will mean what it means plus 'involuntarily, unwittingly, or in a very indirect manner':

(34) Ali-divaj kic .qe-na
Ali-ABL dog-NOM die-AOR

'Because of Ali the dog died',

which can be interpreted as 'Ali killed the dog involuntarily', 'Ali killed the dog accidentally', 'Ali somehow, but not on purpose, caused the dog's death', or 'The dog died because of something Ali did'.

Thus the ablative of the agent NP conveys quite an involved meaning: '... performs such actions that, without his will or even his knowledge, they cause — maybe only indirectly — that...'

(ii) Verbs of belonging normally govern dative in Lezgian:

(35) a. Ali-di z-az ktab vuq-ana
Ali-ERG I-DAT book-NOM pass-AOR

'Ali gave me a book [to be my property]'

(or, in verbatim, 'Caused-by-Ali, to-me a book passed'). (35a) means that the book in question is now my property: it was given as a gift — for ever. But the dative (of the addressee phrase) may be replaced by the adessive, and then the sentence will imply only temporary contiguity in space:

(35) b. Ali-di z-av ktab vug-ana
Ali-ERG I-ADES book-NOM pass-AOR

'Ali gave me a book [on loan]'

means that the book was given to be held for some time only, and is to be returned.

As is clearly seen, the dative of Beneficiary carries the meaning '... as a permanent owner' (or: '...to be the property of...'), while the contrasting adessive means '... as an interim user' ('... to be used or manipulated for some time and to be returned later').

(iii) Lezgian has a verbal construction of the form V_{supine} + xun 'become' which means roughly 'have V done', 'start and finish V'. But if the agent phrase of this construction is marked with the ablative (instead of the nominative or the ergative), the ablative adds to the meaning of the sentence the component 'can', 'possible':

(36) a. Buba šeher-diz f-iz xana-č
father-NOM town-DAT go-SUP became-not

'Father didn't go to town'.

b. Buba-divaj šeher-diz f-iz xana-č
father-ABL town-DAT go-SUP became-not

'Father couldn't go to town'.

c. Buba-di ktab kel-iz xana
father-ERG book-NOM read-SUP became

'Father read the book'.

d. Buba-divaj ktab keliz xana
father-ABL book-NOM read-SUP became

'Father could read the book'.

We see, thus, that even such a typically verbal meaning as 'can' may be the target of a grammatical case in Lezgian.

To sum up the evidence presented in 1: When we load a heavy semantic component '...performs such actions that they cause that...' upon the ergative case we do not contradict the spirit of Lezgian. On the contrary, this solution fits

closely into the general framework of the Lezgian declension, where a high degree of semanticity is characteristic of grammatical cases - even those fulfilling typically abstract, syntactic functions like Actor or Beneficiary.

Let it be emphasized that in sentences like (32) M.M. Gadžiev himself considers the agent phrase in the ablative (Ali-divaj) to be the agentive complement rather than the grammatical subject: the latter role is assigned to the nominative NP (Gadžiev 1954: 98). This constitutes another argument (true, not a very cogent one) in favor of the above solution - namely, to treat the nominative NP in the type (3) sentences as the grammatical subject and the ergative NP as the agentive complement. What is, indeed, the reason to analyse sentences (3) and (34):

(3) Ali-di kiç ·qena.

(34) Ali-divaj kiç ·qena.

from the syntactic standpoint in quite a different manner? SYNTACTICALLY they seem to be identical. The only semantic difference ('caused' in (3), 'accidentally or indirectly caused' in (34)) is obviously related to the different case markings of the agentive NP. Cf. the same situation in English:

(37) a. The book is on the desk.

b. The book is above the desk.

Both sentences are syntactically identical, and it is the semantically loaded preposition that is responsible for the conspicuous semantic difference - in much the same way as is the semantically loaded case in (3) vs. (34).

2. Lezgian has a number of one-actant (traditionally, "intransitive") verbs whose only actant must be in the ergative:

(38) a. A-da qsan-diz k'alaxiz-va
he-ERG good-ADVERB work-PRES

'He works well'.

b. Ruš-a keliz-va
girl-ERG read/study-PRES

'The girl reads/studies'.

c. Gada-di čukuriz-va
boy-ERG run-PRES

'The boy is running'.

d. Gada-di zverna
boy-ERG up-and-ran

'The boy started running'.

In many cases the reason for this is obvious: the verb is derived from the phrase NP_{nom} + avun 'do':

ḳ^{o}alax ijizva 'work do'(i.e., 'to do work') > ḳ^{o}alax-izva;

ḳel ijizva 'reading do' (i.e., 'to do reading') > ḳelizva; etc.

This circumstance does not simplify, however, a synchronic and theoretical analysis of type (38) sentences. We face here the following alternative:

1) We say that in (38) NP_{erg} is the grammatical subject (verbs like ḳ^{o}alaxun 'work', ḳelun 'read, study', čukurun 'run', zverun 'start running' etc. must be lexically marked as taking the ergative in the surface-subject role). This solution does not logically contradict my claim that in type (3) sentences NP_{erg} is not the grammatical subject but no doubt weakens it. Moreover, many verbs of this type appear in two variants: "fused" as in(39a) and (39c) or "separate" as in (39b) and (39d):

(39) a. Ad-a gužlu-z ḳ^{o}alaxiz-va
he-ERG hard-ADVERB work-PRES

'He works hard'.

b. Ad-a gužlu ḳ^{o}alax ijiz-va
he-ERG hard work do-PRES

'He does hard work'.

c. Čn-a ad-az hörmetza-va
we-ERG he-DAT respect-PRES

'We respect him [DATIVE!] '.

d. Čn-a ad-az (gzaf) hörmet ijiz-va
we-ERG he-DAT (much) respect do-PRES

'We respect him (very much)'.

If NP_{erg}s in (39a), i.e. ada, and in (39c), i.e. čna, are grammatical subjects

but the same NP_{erg}s in (39b) and (39d) are — according to my claim—agentive complements (NP_{nom}s k^{o}alax and hürmet being grammatical subjects), we get drastically different syntactic descriptions of the sentences which are quite similar in their structure and semantically synonymous.

2) We admit that in (39a) and (39c) the grammatical subject is absent altogether, NP_{erg} being, in complete conformity with what is supposed about this phrase in Section A, the agentive complement. This would mean that (39a) and (39c) are IMPERSONAL, or, better, SUBJECTLESS, sentences. They can be compared to Russian impersonal sentences of the well-known type (40):

(40) a. Skol'ko nami bylo tut xož-eno!
how-much we-INSTR (it-)was here walk-PART

lit. 'How much was it walked by us here!'

b. Časten'ko byvalo im na beregu siž-eno.
often-DIMIN (it-)was he-INSTR on shore-LOC sit-PART

lit. 'Pretty often was it sat by him on the shore'.

(An essential difference between the Russian and the Lezgian "impersonal" constructions consists in that in Russian, specific morphological values of the copula verb — 3 person singular neuter — forces postulating a zero dummy subject, which triggers this agreement and is similar in function to the impersonal it in English, il in French or es in German, see above, page 238; while in Lezgian there is no grammatical subject at all.)

Subjectless sentences denoting environmental, physiological and psychological states are quite common in Lezgian:

(41) a. Megizva ⟨= Megida⟩
'It is cold'.

b. Z-az megizva ⟨= megida⟩
I-DAT cold
'I am cold'.

(42) a. Čimida ⟨Čimi xana⟩
'It is hot' ⟨lit. 'Hot became', i.e. 'It got hot'⟩.

b. Z-az čimida ⟨čimi xana⟩
'I am hot' ⟨'I became hot'⟩.

(-3) a. (K°al-e) miċida ⟨= miči ja⟩
(room-INES) dark-is⟨dark is⟩

'It is dark (in the room)'.

b. (Ċi xür-e) ak luhud-ač
(our village-INES) só speak-not

'They do not speak so (in our village)',

lit. 'It is not spoken so...'

c. Ad-ak kuna
he-SUBES hit

lit. 'Under him it hit', i.e.

'He took offense,' 'He felt hurt'.

We find even interesting semantic constrasts, like the following ones:

(-4) a. Giśinda ⟨= Giśindi ja⟩
'There is hunger'.

b. Z-az giśinda ⟨= giśindi ja ⟩
I-DAT hungry.be hungry be-PRES

'I am hungry'.

c. Zun giśindi ja
I-NOM hungry be-PRES

'I am a hungry fellow', i.e. 'I am always hungry'.

(-5) a. Sad xana
happy became

'It became cheerful'.

b. Ruś-az sad xana
girl-DAT happy became

'The girl became happy', i.e. 'cheered up momentarily'.

c. Ruś sad xana
girl-NOM happy became

'The girl became a happy person'.

Gadziev 1954: 66-67 considers (45b) and (45c) to be synonymous; I do not think so because of the difference he finds himself between (44b) and (44c).

The decision to take seems obvious to me: Lezgian verbs like k°alaxun, kelun

etc. (page 252) taking their only actant in the ergative should be considered subjectless, and NP_{erg} modifying them an agentive complement. Such a solution neatly corresponds to the general characteristics of the Lezgian language which favor subjectless constructions of various types[9].

3. A current argument against "NP_{nom} = Grammatical Subject" in Lezgian is the imperative. Let me first present the facts as they appear in Talibov 1966: 572-573 and then analyze them.

According to Talibov, the Lezgian imperative has three personal forms (that do not distinguish number):

- 1st person form in -n;
- 2nd person form in -ø (also, -r, reduplication of the last radical consonant or suppletive items);
- 3rd person form in -raj.

See examples:

(46) a. Z-a (Ǯuvan) k^{o}alax iji-n!
I-ERG (my) 'work-NOM do-IMPER
'Let me do my work!'

b. Vun-a (Ǯuvan) k^{o}alax aja!
you-ERG (your) 'work-NOM do-IMPER
'Do your work!'

c. Ad-a (vičin) k^{o}alax avu-raj!
he-ERG (his) 'work-NOM do-IMPER
'Let him do his work!'

This means that the Lezgian imperative presents personal agreement with the actor in a sharp contrast to all other verbal tensed forms which lack agreement completely. The same thing seems to happen with the one-actant (= "intransitive") verbs:

(47) a. Zun paka q̣'e-n!
I-NOM tomorrow come-IMPER
'Let me come tomorrow!'

b. Vun paka atu!
you-NOM tomorrow come-IMPER
'Come tomorrow!'

c. Am paka atu-raj!
he-NOM tomorrow come-IMPER

'Let him come tomorrow!'

Examples (46)-(47) suggest that the actor NP triggers agreement of the main verb and so acquires the privileged status that is necessary for an NP to be deemed grammatical subject (since no other NP does so). Thus the imperative construction in Lezgian appears to be a counterargument when discussing the subjecthood of NP_{nom} : it is NP_{erg}, rather than NP_{nom}, that determines the form of the imperative verb in (46).

However, all of the above deliberations are wrong. What makes Talibov's statements concerning the imperative suspicious to me is a well-known typological consideration: imperative forms are highly specific in comparison to all other verbal forms; in particular, as a rule, imperative forms do not distinguish more categories than the forms of all other moods (see, e.g., Jakobson 1972). Therefore, it seems highly improbable that in a language where no verbal finite form shows personal agreement, it would be exclusively the imperative form that agrees with its "grammatical subject". I propose, then, the following explanation of the facts (46)-(47).

In actual practice, Lezgian possesses (at least) two different "command" moods: an imperative and an optative.

The imperative means roughly 'speaking to you [= my addressee], I want you to (cause that)...'; that is, using an imperative form the speaker URGES his listener TO DO something. Because of this meaning the Lezgian imperative is semantically incompatible with actors of persons other than 2nd: 'let me' or 'let him' cannot be rendered in Lezgian by an imperative form. The meaning 'Prepare a book for me!' must be expressed in Lezgian as (48):

(48) Vun-a z-az ktab hazura!
you-ERG I-DAT book-NOM prepare-IMP

which means, strictly speaking, 'I want you to cause that a book get ready for me'.

The o p t a t i v e means 'speaking to you [= my addressee], I want that... have place' - that is, WITHOUT the component '(want) YOU TO CAUSE (that)', or without trying to urge the listener to do anything. Therefore, the optative admits actors or perceivers of all three persons, 2nd person included:

(49) a. Čun jašamiš-raj!
we-NOM live-OPT

'Long live we!'

b. Vun giliq-raj, dušman![10]
you-NOM die-OPT enemy-NOM

'Let you die, enemy!'

c. Ad-a zi ktab qaču-raj!
he-ERG my book-NOM take-OPT

''Let him take my book!'

Telling semantic constrasts are possible; compare (50), featuring an imperative to (51), with an optative:

(50) V-az buba kan xux!
you-DAT father-NOM 'beloved become-IMPER

'Love your father!',

or, in a more explicit form,

(50') 'I want you to cause that your father become beloved to you', which means that I hold you responsible for the feeling in question and try by my words to induce it in you. On the other hand,

(51) V-az buba kan xu-raj!
you-DAT father-NOM 'beloved become-OPT

'Let you love your father!'

means

(51') 'I want that (it happen so that) your father become beloved to you'. Uttering (51), I do not try to urge my interlocutor to do something: I simply express my desire.

Note in passing that the negative form of the imperative is built by suffixing -mir to the positive form, while in the optative the negative form is built by

prefixing t-. Thus, -mir occurs only in the 2nd person forms, and t- cooccurs with all three persons[11].

The above analysis readily explains why the Lezgian says 'Don't be afraid!' in the imperative and 'Don't be hot!' in the optative, although structurally both sentences are identical - something like 'Don't it be frightening/hot to you':

(52)a. V-az kiče že-mir!
you-DAT frightening become-not-IMPER

(že- is a suppletive stem of xun 'become')

and

b. V-az čimi ta-xu-j/ta-xu-raj!
you-DAT hot not-become-OPT

In (52a), I ask you TO DO something, if only on moral or psychological level, to avoid fear; in (52b) I simply express my desire that heat be not excessive, whilst you are not supposed to do anything. If the imperative and the optative can be exchanged in (52a) and (52b) (I do not know whether this is the case, since no speaker of Lezgian is available to me now), they would mean, respectively,

(52a′) 'I wish that you meet nothing frightening'

and

(52b′) 'Do something to avoid being overheated' (e.g., put on lighter cloths, open a window or switch on a fan).

If my analysis of Lezgian command sentences is correct, then the imperative counterargument can be safely disposed of.

4. The next argument to be weighed is the existence in Lezgian of so-called causative verbs with suffixes -ar-, -ur-,-ür-, and -ud-:

(53) a. aqʰaz-un 'to stop' [intr.] - b. aqʰaz-ar-un 'to stop somebody or smth
acuq-un 'to sit down' - acuq-ar-un 'to seat somebody'(or 'to settle somebody')
qür-ün 'to laugh' - qür-ür-un 'to make laugh'
kus-un 'to sleep' - kus-ur-un 'to put to sleep'
galat-un 'to get loose' - galud-un < galat-ud-un 'to detach'

The verbs listed in (53b) strike the observer as being seemingly transitive and thus contradicting my claim that there are no transitive verbs in Lezgian. But

in fact they are not. Actually, aqʷaz-ar-un means ' cease moving because of some external efforts', acuq-ar-un 'sit (or settle) down because of some external efforts', etc. The best proof of it is the fact that sentences with the (53b)-type verbs are both perfectly grammatical and fully autonomous and self-sufficient without any mention of the causer, i.e., with no NP_{erg}:

(54)a. Ajal kus-ur-na
child-NOM sleep-CAUS-AOR

'The child was put to bed'.

b. Taxirkar-diz vigovor malum-ar-na
guilty-DAT reprimand known-CAUS-AOR

'The guilty one was publicly reprimanded'
(lit. 'To-the-guilty-one, a-reprimand was-declared).

etc.

I feel that it would be helpful if I add two more facts about Lezgian causatives.

(i) The following pair of sentences seems to clearly show that the causative suffix imparts to the meaning of the stem the semantic component '...because of some external efforts':

(55) a. Z-az pul žxa-na
I-DAT money-NOM find-AOR

'I found some money-quite accidentally, without having looked for it'

vs.

b. Z-a pul žuɣ-ur-na
I-ERG money-NOM find-CAUS-AOR

'I found the money I was looking for'.

In both sentences, the form of zun 'I' may be safely omitted, and then (55a) means 'Some money appeared ⟨happened to be found⟩ ' while (55b) means 'The money was discovered (by somebody who had been looking for it)'.

(ii) It is repeatedly stated (Gadžiev 1954: 117, Talibov 1966:570) that Lezgian causative verbs derived from transitive verbs do not differ in meaning from their non-causative partners. Currently cited examples include

(56) degiš-un - degiš-ar-un 'exchange'
altadmiš-un - altadmiš-ar-un 'cheat, dupe'
tamam-un - tamam-ar-un 'fulfill, comply with',

etc.

But my opinion is that the above statement is in general wrong--although the examples in (56) are basically correct. The causative formant always brings with it the meaning '... because of some external effort' but verbs denoting 'cheating' or 'fulfilling' do already have this component - since their meanings necessarily presuppose some external efforts; and therefore no apparent difference is perceived. However, taking a verb like čur-un 'melt' we get the following:

(57) a. Živ čraz-va
snow-NOM 'melt-PRES

'Snow is melting'.

b. Raq-ini Živ čraz-va
sun-ERG snow-NOM 'melt-PRES

'The sun is melting the snow', lit. 'Because-of-the-sun snow is-melting'.

c. Živ čur-ur-iz-va
snow-NOM 'melt-CAUS-PRES

'Snow is being melted'.

d. Raq-ini Živ čur-ur-iz-va
sun-ERG snow-NOM 'melt-CAUS-PRES

'The sun is melting the snow'.

(57b) and (57d) are synonymous, the meaning '...and because of some external efforts' being expressed in (57d) twice: by the ergative case of raq 'sun' and by the causative formant -ur- in the verb.

I concocted myself the examples in (57) and I am not sure all of them are correct. But a rather identical state of affairs is reported for Andi (closely related to Lezgian) in Hewitt 1978: 6; cf. Hewitt's examples:

(58) a. Hinc'u arxon
door-NOM open-PAST

'The door opened'.

b. Hedeš-di hinc'u arxon
he-ERG door-NOM open-PAST

'He opened the door'.

c. Hinc'u arxon-ɮi
door-NOM open-PAST-CAUS

'The door was opened'.

d. Hedeš-di hinc'u arxon-ɮi
he-ERG door-NOM open-PAST-CAUS

'He opened the door'.

This makes we believe that the picture I propose for Lezgian causatives is faithful to actual facts.

Thus, the Lezgian causatives do not contradict the claim that all Lezgian verbs are basically intransitive. Rather, they show quite well how genuine transitive verbs could eventually emerge in Lezgian—for instance, if the causative verbs cease to admit a free omission of the causer phrase in the ergative, and so on.

5. Now comes the main thesis put forth by those who propose to consider NP_{erg} as the grammatical subject in sentences like (3), (7a), (8a), etc. It runs approximatively as follows (adapted from Gadžiev 1954: 83 ff.).

If in (3) NP_{erg} is taken to be the agentive complement and NP_{nom} the grammatical subject, then (3) turns out to be an analogue of the passive construction of English, Latin, Russian, etc. (Note that older researchers— to name P.K. Uslar, for instance,—actually spoke of (3) as of a passive construction.) Then all Lezgian verbs must be equated with passive forms of the corresponding Indo-European verbs, and the Lezgian ergative, with the Latin ablative, or the Russian instrumental, or the English agentive phrase introduced with <u>by</u>. Yet this is unacceptable at least for two reasons:

— The linguistic intuition of the Lezgian people seems to perceive type (3) constructions as active. More precisely, any Lezgian with a firm command of all subtleties of Russian (or English, for that matter) will translate (3) by an

active construction and is likely to protest against a passive-construction equivalent.

— The Lezgian ergative is not equivalent to the instrumental of Indo-European languages: it denotes the agent only, whilst for designating tools of an action a separate instrumental (more precisely, a supralative, with the basic meaning 'onto') is available, cf.:

(59) Buba-di jak°-aldi karas-ar atuz-va
father-ERG ax-INSTR wood-PL-NOM cut-PRES

'Father cuts wood with an ax'

(the ergative of 'ax' being jak°u).

However, as far as I can see, the above objections are due to nothing more than a misunderstanding. Nobody (including Uslar) ever seriously maintained that the Lezgian type (3) construction actually IS a passive construction. Reference to the passive construction was (and sometimes is being) used exclusively as a handy comparison — to disclose for English (French, Russian, ...) readers formal peculiarities of Lezgian "transitive" sentences. It is obvious that Ali-di kiç ǵena should not be seriously analysed as 'By-Ali the dog was-killed'. The passive construction is always secondary and non-neutral. It is but a stylistic or communicative variant of the active construction, normally with a restricted domain of usage — not in informal speech, not in the first utterance of a discourse, etc., while the active construction knows no such restrictions (cf. Kurilovič 1946). Yet in Lezgian the construction $NP_{erg} + NP_{nom} + V$ is the only construction available, and it is used with no restrictions whatsoever. Therefore, it is perceived as basic and neutral, i.e. closer to the Russian active construction. For the speakers of a language, the primary character, the basicness of a linguistic item, constitutes a highly relevant property immediately perceptible by the native linguistic intuition. At the same time, all formal details of speech (like syntactic constructions, etc.) are not perceived (or quite poorly perceived) by native speakers in normal linguistic communication. Small wonder, then, that for

the Lezgian speakers their type (3) construction is much nearer to the neutral and basic Russian active transitive construction. But all this by no means prevents the type (3) constructions from being built, on the plane of their formal structure, more like a passive construction.

I feel that the oldest analysis of (3), by P.K. Uslar, is the right one: NP_{nom} is the grammatical subject and NP_{erg} the agentive complement, without the verb being passive; it only reminds an Indo-Europeanist of passive forms. The Lezgian ergative need not be equated with the Indo-European instrumental, and thus the above objections miss their target.

In order to bring this section to a long overdue end, let me emphasize the following important point. Gadžiev himself quite convincingly shows, for at least three types of Lezgian constructions which are traditionally taken to be transitive (perhaps by a superficial analogy with some other Daghestanian languages), that they are intransitive so that NP_{nom} is the grammatical subject, not the direct object, as many believe.

a) Constructions with verbs of perception or feeling.

Gadžiev argues that in (60):

(60) Z-az balkan akʷ-ada
I-DAT horse-NOM see-PRES

'I see a horse'

the grammatical subject is balkan 'horse' and the sentence is construed as 'To-me a horse is visible'; cf.

(61) Daχ-din kukʷ-alaj viri dugun akʷ-ada
mountain-GEN summit-DEL all valley-NOM see-PRES

'From the summit of the mountain, all the valley is visible'.

The same holds for such verbs as 'hear' (= 'the sound comes'), 'smell' (= 'the smell comes'), 'know' (= 'is known'), 'love' (= 'is beloved'), etc.

See pairs of sentences quoted by Gadžiev:

(62) a. Z-az raxun-rin van ata-na
I-DAT conversation-GEN sound come-AOR

'I heard the conversation' (lit. 'To-me the sound of conversation came').

b. Z-az muhman ata-na
I-DAT guest-NOM come-AOR

'To me a guest came'.

(63) a. Gada-diz tars čI-da
boy-DAT lesson-NOM known-be.PRES

'The boy knows his lesson'.

b. Gada-diz i kar malum ja
boy-DAT this business-NOM known be-PRES

'To the boy, this business is known'.

(64) a. Gada-diz i ruš kan-da
boy-DAT this girl-NOM beloved-be.PRES

'The boy loves this girl'.

b. Gada-diz i ruš kan xa-na
boy-DAT this girl-NOM beloved become-AOR

'The boy fell in love with this girl',

(64b) being a regular past form of (64a); cf. (65):

(65) I ruš qsan xa-na
this girl-NOM good become-AOR

'This girl recovered/improved/became good',

which is syntactically built just like (64b).

Thus, according to Gadžiev, there is no affective, or dative, construction in Lezgian: sentences presented in (60) through (65) all feature the most trivial intransitive nominal construction. (The traditional and officially accepted view in the Soviet Lezgianistic studies — cf., e.g., Mejlanova 1967: 539 — holds the NP_{dat} in (60), (62a), (63a) and (64a) to be the GS, with the NP_{nom} being the direct object.)

b) The stative, or resultative, construction.

In sentences of the type (66):

(66) a. Rak aqa-jna-va
door-NOM open-AOR-RESULT

'The door is/has been opened (obviously, by somebody)'.

b. I rajon-da plan behem-ar-na-va
this district-INES plan-NOM fulfill-CAUS-AOR-RESULT

'In this district, the plan is/has been fulfilled'.

c. Klub agal-na-va
club-NOM closed-AOR-RESULT

'The club is/has been closed'.

The grammatical subject is, Gadžiev insists, the NP_{nom}.

c) Modal constructions meaning 'by accident' or 'possibility'.

In (32):

(32) Ali-divaj kic qe-na.
Ali-ABL dog-NOM die-AOR

'Ali killed the dog accidentally'—

Gadžiev attributes the role of grammatical subject to kic ; likewise in all similar cases where an NP_{erg} denotes an involuntary, on indirect, causer.

He proposes the same analysis for (67):

(67) Dide-divaj ajal sekin-riz žez-(va-čir)
mother-ABL child-NOM quiet-SUP become-RESULT-not

'The mother could not still the child'.

That is, he says that dide-divaj, although semantically the actor, is grammatically no more than an indirect object, while the grammatical subject is the NP_{nom} ajal 'child'.

Nonetheless, having so resolutely stripped the semantic actor (or causer, or perceiver) of its privileged syntactic status as the grammatical subject in three above-mentioned specific cases, Gadžiev stops as if frightened before the general case

(3) Ali-di kic qe-na
'Ali killed the dog'.

Here, he repeats, in complete accordance with the most widespread modern view, that Alidi is the grammatical subject, and kic the direct object. He claims even

more: if a NP_{erg} is added to a sentence of the (66) type, this NP_{erg} becomes the grammatical subject and the NP_{nom} becomes the direct object (page 121)! The only explanation I have for this strange logical aberration is pressure from the Russian grammar. It seems to be too difficult for linguists who either are Russian or do all their scientific thinking and writing in Russian to accept such a drastic digression from the Russian pattern. One readily recalls the terrible burden of the Latin grammatical tradition that has so strongly influenced the description of European vernaculars for so many centuries. But let me add that it has been repeatedly stated in Soviet linguistic literature that the description of national languages of the USSR should bring them nearer to the Russian grammar, in order to facilitate for the nationals the assimilation and mastery of Russian[12].

Now, summing up the evidence discussed in Subsections A, B, and C, I can definitively state my final conclusion:

(68) In all Lezgian constructions of the (2)-(3) type:

(2)	NP^1_{erg}	NP^2_{nom}	V
(3)	Alidi	kic	qena

'Ali killed the dog'

the grammatical subject is NP_{nom}, and NP_{erg} is no more than an agentive complement or an indirect object.

II.

With my subsequent deliberations anchored in statement (68), I will now set out to answer the question whether the (2)-(3) type constructions in Lezgian are ergative or not.

It is obvious that the answer is fully dependent on the definition of ergative construction (EC) that we proceed from, or, more precisely, on the meaning and use of the linguistic term ergative. Without trying to propose and substantiate here a definition of EC[13], I will limit myself to driving home the two following important points:

First, I am speaking here exclusively about the ERGATIVE CONSTRUCTION, and not about ergative languages. I believe that a language may admit an ergative construction without being, for that matter, ergative (e.g., because the EC in it has a very limited range - or because it possesses many properties alien to the genuine ergative structure). Take, for instance, Aronson 1970: 295, who states that Georgian is not an ergative language (= not a language with an ergative structure) and quotes some arguments to support this view[14]. I share Aronson's opinion--but this by no means prevents me from saying that the most current Georgian transitive construction (in the aorist series) is quite a typical instance of EC:

(69) Mama-m cerili-i dacer-a
father-ERG letter-NOM write-AOR

'Father wrote the letter.'

(mamam is here the grammatical subject and cerili the grammatical direct object; I must abstain from substantiating here this analysis, which is, by the way, the generally accepted one).

I would not even mind (in principle) using the adjective ergative to describe languages like Lezgian, with basically intransitive verbs and agents marked by the ergative case. But now I am discussing the structure of a specific syntactic construction, rather than the structure of a language as a whole. So let us stick to the construction as such.

Secondly, I insist that the term construction should be construed as to apply to (SURFACE-) SYNTACTIC formations only. The EC is, then, a special case of the predicative (bipartite) or the predicative-objective (tripartite) construction the specificity of the former residing in its relationships with the neighboring levels - morphological marking and deep-syntactic interpretation. Therefore, it must be forbidden to speak of an ergative construction if one has in mind something purely semantical.

It becomes immediately clear that the type (2) construction in Lezgian -

.lidi kiç qena 'Ali killed the dog' — cannot be an EC. In all probability, there re no ECs at all in Lezgian. Lezgian and, say, English (as a typical representative of the so-called nominative languages) are contrasted on a far deeper level than hat of the surface syntax, where the ergative construction occurs: both languages iffer on the semantic level, since the semantics of Lezgian verbs (all of them eing intransitive des.riptions of STATES) is sharply distinct from what we find n English. Syntactically, (3) is an instance of the most trivial intransitive nminative construction.

There would be no logical contradiction if somebody chooses to call Lezgian n e r g a t i v e l a n g u a g e, provided that this term is defined roughly s 'a language all of whose verbs are intransitive descriptions of states and where he actor is marked by a specific grammatical case: the ergative'. Nevertheless, ersonally I would not recommend such usage for a purely terminological reason. n fact, if the term ergative construction is retained, then it will be necessary o say that ergative languages do not possess the ergative construction, etc., hich might lead to some harmful confusions. It is safer to save the term ergative construction, reinterpret the term ergative language as (roughly) 'a language re ergative constructions predominate', and coin for the languages of Lezgian ype a new term. (It seems obvious that this terminological difficulty arose ecause by the time the usages of the adjective ergative were being established in eneral linguistics, no clear-cut distinction had been drawn between Georgian-type nd Lezgian-type languages, ergative being used indiscriminately for both in — as have seen — two basically different senses.)

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NOTES

1. (To page 229). Verbs of perception, feeling and thinking manifest quite a different construction in Lezgian; see below, page 263.

2. (To page 230). The Lezgian (and other) examples are cited in an (almost) generally accepted phonemic transcription. Some conventions:

C stands for an a b r u p t i v e consonant (pronounced with one's larynx closed);
C° stands for a l a b i a l i z e d consonant;
C' stands for a p a l a t a l i z e d consonant;
C_y stands for a n o n - a s p i r a t e d consonant
(in most cases, Lezgian k,p,t are strongly aspirated so that their phonetic realization is rather [k^h], [p^h], and [t^h]; the lack of aspiration, not shown in conventional Lezgian spelling, may be phonemic, cf. tar 'the tara, a popular musical instrument' vs. $t_y$ar 'tree', both written tar; or kal 'not ripe' vs. $k_y$ei 'cow', both written kal.

Now, q is the uvular aspirated voiceless stop, χ - the uvular voiceless fricative, ɣ being the voiced counterpart of the latter. Thus q in qena 'died', which recurs so often in my examples, represents the uvular abruptive voiceless stop.

As far as morphology is concerned, in the word-forms quoted the morphemes are separated by hyphens - but only when it seems relevant for the analysis under way. The English glosses try to mirror the sequence of original morphemes, and the components of one complex gloss describing one Lezgian morpheme are separated by stops. An alphabetical list of grammatical abbreviations used is offered below:

ABL - ablative case (-divaj)
ADES - adessive case (-div)
AOR - aorist (past tense denoting an accomplished punctual event; -na)
CAUS - causative (-ar-, -ur-)
DAT - dative case (-diz)
ERG - ergative case (-di)
FUT - future (tense denoting future or habitual events; -da)
GER - gerund
IMPER - imperative mood
IMPF I - imperfect I (-vaj)
IMPF III - imperfect III (past tense denoting a prolonged or repeated event; -daj)
INES - inessive case (-e, -da)
INSTR - instrumental case (-daldi)
MASD - masdar (action nominal, that plays the role of the infinitive; -n)
NOM - nominative case (-∅)
OPT - optative mood (-raj)
PART - participle
PAST.GER - past-tense gerund (always homonymous with aorist)
PL - plural
PRES - presence (-va)
RESULT - resultative (past tense denoting a past event whose results are present at the moment of speech; -nava)
SG - singular
SUBEL - subelative case (meaning 'from under'; -dikaj)
SUBES - subessive case (meaning 'under'; -dik)
SUP - supine (meaning roughly 'with the purpose of'; -iz)

3. (To page 236). I do not really mean EVERY sentence of L. It would be safer and wiser to add here: "...perhaps, with the exception of some specific types of sentences that must be fully listed prior to application of the test".

4. (To page 239). Curiously enough, all the Lezgian verbs that Gadžiev (1954:100) lists as labiles happen to have two different equivalents in Russian:

gin = umirat' 'die' or ubivat' 'kill';
un = goret' 'burn, intrans' or žeč' 'burn, trans';
ugun = kipet' 'boil, intrans' or kipjatit', varit' 'boil, trans';
gurun = soxnut' 'dry, intrans' or sušit' 'dry, trans';
un = razbivat'sja 'break, intrans' or razbivat' 'break, trans';
urun = peč'sja, pospet' 'be baked, get ready' or pe[illegible] 'bake';
tun = porvat'sja 'get torn /divided'or porvat' tear, divide', rezat' 'cut';
azunun = porvat'sja 'get torn' or porvat' 'tear'.

or other verbs, such as basmišun 'crush, flood, block', cun 'plough; sow', xurun weave', gačun 'take', jarxarun 'fell, knock down', etc., which behave in quite he same way, Russian lacks such an obvious "proof" of ambiguity. This is, I am fraid, the only reason for distinguishing in Lezgian a small class of labile verbs while in fact either all Lezgian verbs are labile, or none of them is.

For another instance of Russian influence on the Lezgian linguistic thought, ee below, page 266.

5. (To page 242) .Note that the identity of morphological markings is not equired for both As; cf. (25)-(27).

6. (To page 242). Here is an obvious example. Let A be a noun phrase, X and two prepositions. It is beyond any doubt that then $r_1 = r_2$. And yet the gapping s possible in Russian only when X and Y govern the same grammatical case but not therwise:

(i) pod vodoj i nad vodoj →
under water-INSTR and above water-INSTR
pod i nad vodoj 'under and above the water',

ut

(ii) pod vodoj i na vode ↛
under water-INSTR and on water-PREP
*pod i na vode 'under and on the water';

(iii) iz-za nego i radi nego →
because.of he-GEN and for.the.sake.of he-GEN
iz-za i radi nego 'because of and for the sake of him',

it

(iv) iz-za nego i blagodarja emu ↛
because.of he-GEN and thanks.to he-DAT
*iz-za i blagodarja emu 'because of and thanks to him'.

Cf. also:

(v) *Marija byla blagodarna i uvažala Ivana
'Mary was grateful (to) and respected Ivan'

are blagodarna governs the dative and uvažala the accusative, and many similar amples.

(The right way to say (v) would be (vi):

(vi) Marija byla blagodarna Ivanu i uvažala ego.
'Mary was grateful (to) Ivan and respected him')

7. (To page 244). The only bit of positive evidence for the type (29) sentences I could find (very inconclusive evidence, I must admit) is as follows. In both of his books, Gadžiev warns against collapsing NP_{erg} and NP_{nom} under gapping (1954:191 and 1963:54-56), and stigmatizes some examples of this kind he finds in the Lezgian press and literature as contradicting the spirit of Lezgian, "careless and ugly style" - induced possibly by the Russian usage. But he never mentions collapsing NP_{nom} ($V_{(tr)}$) with NP_{nom} ($V_{(itr)}$)-which I interpret as a covert indication that this operation is possible, even if not fairly common.---It may be helpful, for an interested reader, to have here some more examples of Lezgian sentences with non-collapsable GSs (bold-faced):

(i) Alimehamed vičin lit-inin q̣en-e haq-na
Alimehamed-NOM his coat-GEN inside-LOC get.into-AOR

acuq-navaj ad-a kifil jayiz-vaj va
sit-RESULT II he-ERG reed.pipe-NOM play-IMPFI and

zajif van-celdi mani-jar luhuz-vaj
weak voice-INSTR song-PL-NOM sing-IMPFI

'Alimehamed sat, wrapped in his woolen coat, played the reed-pipe and sang songs in a low voice'.

(ii) Sekretar ad-aq alq̣°-ena va ad-a sa vuč žibin-din
secretary-NOM he-TRANSES turn-AOR and he-ERG one what pocket-GEN

knižka-da kx-ena
book-INES write-AOR

'The secretary turned to him and wrote something in his notebook'.

Let it be emphasized that in (ii), it is the secretary who wrote, not 'he': ada refers to the secretary, not to adaq.

(iii) Rabijat-a storož raγkur-na va
Rabijat-ERG watchman-NOM send.away-AOR and

vič-ni ha-dan qüγünal alaz eq̣ec-na javaš-javašdi
she-NOM-also that-GEN behind being go-out-GER without.hurry

fe-na
go-AOR

'Rabijat sent the watchman away and, going out after him, she also went there in no hurry'.

8. (To page 246). There is probably a further syntactic property that could throw some light on the problem of the grammatical subject in Lezgian: the use of the reflexive pronouns žuv 'myself/yourself', vič 'himself/herself' and čeb 'themselves'.

(i) Gada-di vič-iz čekme-jar zakaz ijiz-va
boy-ERG himself-DAT boot-PL-NOM order-NOM do-PRES

'The boy orders boots for himself'

as opposed to (ii):

(ii) Gada-di ad-az čekmejar zakaz ijizva
'The boy orders boots for him', i.e., for somebody else.

See further (iii) and (iv):

(iii) Wun-a žuv-an k'alax avu-raj!
you-ERG your work do-OPT
'Let you do your work!'

(iv) Ad-a vič-in k'alax avu-raj!
he-ERG his work do-OPT
'Let him do his work!'

However, the data about these pronouns are so scanty in Cadžiev 1954 and 1963 that it proved impossible for me to draw any sound conclusions.

9. (To page 255). A short terminological note seems to be not out of place here. I suggest that three notions be kept strictly apart:
- S u b j e c t l e s s sentences, or the sentences that have no GS at all, like (41)-(43).
- Z e r o s u b j e c t sentences, or the sentences that have a zero subject, like (12a-b) and (40).
- I m p e r s o n a l s e n t e n c e s, or the sentences that do not semantically admit an actual actor or perceiver, like It rains or It's getting dark.

As we see, an impersonal sentence can have a subject, even if only a dummy; on the other hand, a subjectless sentence is not necessarily an impersonal one, as, e.g., (41b) and (42b), where a human perceiver is explicitly mentioned. (A similar distinction was proposed in Jakovlev 1940: 14-15.)

10. (To page 257). A further example of 2nd person optative form is the current formula of saying 'goodbye', 'farewell', 'thank you':

(i) De, vun sa/-raj!
well you healthy-OPT

11. (To page 258). To avoid overburdening my analysis I ignore the forms in -n, which I think constitute a further mood: h o r t a t i v e. Contrary to what Talibov says, these forms are not restricted to the 1st person; cf. the following line by Suleiman Stal, famous Lezgian poet:

(i) Fahum-fikir iji-n vič-i
reasoning-NOM do-HORT himself-ERG
'Let him reason himself!'

12. (To page 266). It is interesting to quote, in this connection, some passages from Jakovlev 1940. Jakovlev fights the opinion that NP_{nom} in Čečen sentences (structurally quite close to the Lezgian sentences of the (3) type) is the grammatical subject. But his only argument is as follows: "Such an interpretation of the Čečen transitive construction [i.e., if the NP_{nom} is declared the GS] lead not only to theoretical confusion but had and still has serious practical consequences. Due to this explanation of the Čečen structure..., the correct acquisition of Russian is most strongly impeded for a vast majority of Čečen people... All this sabotage is a direct result of shortsightness and purposeful russification policy [sic!] of Čečen bourgeois nationalists... this "theory" [= that the NP_{nom} is the $GS(V_{(tr)})$] is no more than a front for robbing policies of capitalist powers; that is why it is shared and supported by all these saboteurs, worse enemies of the Soviet people"(pages 46-47); "if we were to accept that in Čečen the direct object [= $NP_{nom}(V_{(tr)})$] is the grammatical subject,... then the Čečen people would be deprived of the possibility to correctly acquire Russian and other European languages... In a word, it would mean that we follow the dangerous path of people's

enemies, the bourgeois nationalists. Therefore, the only correct, scientific solution is to call grammatical subject in Čečen exactly what is called grammatical subject in all other standard [sic!] languages" (pages 50-51). It is really difficult to stop quoting arguments like these...

13. (To page 266). For an excellent discussion of all problems related to ergative constructions, see two papers by B. Comrie (1973, 1977), and comprehensive studies by R. Dixon (1979) and D. Johnson (forthcoming), as well as a lot of first-class works referred to in the above titles. My own approach to the problem is summarized in Mel'čuk 1979a: 55-57 and Mel'čuk, 1978.

14. (To page 267). Namely, there are three arguments: "Firstly, the agent of a transitive verb can be marked in Georgian not only by an ergative case but also by a dative-accusative and by a nominative. Secondly, the substratum [= GS] of middle verbs is marked generally by the ergative and not by an 'absolute' case (nominative). Thirdly, the presence of a whole set of passive paradigms is a feature typical of 'nominative' languages rather than of 'ergative' languages" (Aronson 1970:295).

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